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Prof. SPENCER F. BAIRD.

Late United States Commissioner of Fish and Fisheries.

. . WITH . .

ROD AND GUN

IN

NEW ENGLAND

AND THE

MARITIME PROVINCES

BY

Edward A. Samuels

Ex-President Massachusetts Fish and Game Protective Association,

Author of "Ornithology and Oölogy of New England," "Mammalia of New England," "Among the Birds," "With Fly-Rod and Camera"

Editor of "A Thousand Miles Walk," "Somerville, Past and Present," "The Living World," Etc.

WITH

VALUABLE SUPPLEMENTARY CHAPTERS

BY

CHARLES HALLOCK, FRANK H. RISTEEN, ARCHIBALD MITCHELL, Dr. JAMES A. HENSHALL, J. PARKER WHITNEY, WARREN HAPGOOD, Major FRED MATHER, Hon. HUBERT WILLIAMS, CHARLES J. MAYNARD, A. N. CHENEY, Hon. HENRY O. STANLEY, Hon. JOHN W. TITCOMB, FRANK BATTLES, Esq., BENJAMIN C. CLARK, HENRY H. KIMBALL, and ARTHUR W. ROBINSON

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INTRODUCTION.

READING sportsmen, lovers of the rod and gun, will, we believe, find much to interest them in this volume.

The publishers have endeavored in its preparation, to present all the prominent subjects that are of practical value to those who find pleasure in the forests or along the shores and streams of New England and the Maritime Provinces. They have also hoped to contribute in some degree, to a more intimate acquaintance with the natural history and habits of the animals, birds and fishes, sought by the hunters and anglers in the sections treated of.

In presenting most of the subjects, the form of dialogue has been employed, in which are interwoven numerous incidents of actual occurrence, in the many years' experience of the author. While disclaiming an attempt to produce a pretentious volume, we believe that the great increase in the number of sportsmen who wish to acquire increased knowledge of the habits and peculiarities of our various kinds of game and fish, warrants the issue of such a work as we have prepared. The topics treated of by the various well-known writers are so numerous and of so wide a scope, that they preclude the possibility of obtaining information upon many of them without consulting a number of volumes, while, so far as we are aware, several have never been presented by writers of sportsmen's books.

Our grateful acknowledgment of the most generous co-operation and assistance we have received from the eminent writers who have contributed to the work is due; we also tender our sincere thanks to those who have furnished us photographs for many of the illustrations, as well as to those who have kindly permitted us to make use of some of their attractive cuts, for the embellishment of the book.

It was suggested that an interesting and pleasing feature of the work would be the addition of a number of portraits of the devotees of the rod and gun, men whom we have been delighted to meet, not only in the hunter's camp and by the lake and stream, but in their homes and among the busy and social scenes of every-day life.

Acting on this suggestion, we invited a number of those who belong to the great fraternity of sportsmen and those who are otherwise interested in our game, birds and fish, to allow their portraits to appear, and the collection that we are able to present will, no doubt, prove an interesting addition to the volume.

SAMUELS & KIMBALL, Publishers.

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ERRATA.

The names of the Coots on pages 141 and 145 accidentally became transposed; the Surf Duck or Butter-Bill Coot on page 141 is the Skunk-Head Coot, and the Scoter or Common Coot, on page 145, is the Butter-Bill Coot.

"In the Brown October Woods."

EDWARD A. SAMUELS, BOSTON.

WITH ROD AND GUN

IN NEW ENGLAND AND THE MARITIME PROVINCES.

CHAPTER I.

THE DELIGHTS OF SALMON FISHING. — OUR ARRIVAL AT CAMP. — FIRST BLOOD. — FIRST SALMON. — THE DOCTOR'S THEORY. — NATURE'S LAWS MUST BE OBEYED. — DESTRUCTION OF RACES OF ANIMALS. — POSSIBLE EXTIRPATION OF THE MOOSE. — DISTRIBUTION AND NATURAL HISTORY OF THE MOOSE. — METHODS OF MOOSE-HUNTING. — DESCRIPTION OF A MOOSE FIGHT. — SIZE OF MOOSE. — TENDERFOOT LUCK. — DISTRIBUTION AND NATURAL HISTORY OF THE CARIBOU. — VARIETIES OF THE CARIBOU. — CARIBOU IN NOVA SCOTIA AND NEWFOUNDLAND. — THE COMMON DEER IS WIDELY DISTRIBUTED. — ABUNDANCE OF DEER IN MAINE. — NATURAL HISTORY OF THE DEER. — METHODS OF HUNTING IT. — DESTRUCTIVENESS OF "JACK HUNTING." — SOUNDS OF THE NIGHT.

TO those who have no taste or inclination for "the gentle art," the charms it possesses are entirely unappreciable, and, to "go a-fishing" often means to them an absurd waste of time and an expenditure of physical exertion quite incommensurate with the degree of pleasure that can possibly be attained.

Fortunately, the number of these sceptics is not only small, but it is rapidly decreasing, and I do not hesitate to say that among all the field sports, none to-day occupies a higher position or awakens among its devotees a greater enthusiasm than does that of angling. Of course, there are many kinds of angling, ranging from that followed by the boy, who, with willow or alder rod in hand, seeks the dace and minnows in the rippling brook, to that pursued by vigorous man who follows and does battle with the princely salmon or the gigantic tarpon,—but they all have their fascination.

I have, in my many years' experience with rifle and shot gun, taken my share of great game and small, and have tasted the pleasures of various other sports that men indulge in; but nothing has given me a greater enjoyment than I have found with rod and line, and nothing now affords me a keener delight than the feeling that I may perhaps, in coming years, have a few more outings on the northern streams.

Although, undoubtedly, there is a pleasure to be found in every kind of angling, the joy of greatest intensity is by me attained in salmon fishing. This is a sport *sui generis*—a sport apart by itself; there is nothing like it; it is glorious! Perhaps one of its greatest charms lies in the fact that it leads its devotee into the wildest and most picturesque of

Photo. by W. L. Underwood. BEGINNERS.

nature's surroundings. In its pursuit he must go to the wilderness and follow the flashing rivers in their course among the grand old mountains; he must breathe an air fragrant with the odors of the balsam and the hemlock; he much inhale the fragrance of the thousands of wild flowers, which, perhaps, were "born to blush unseen" if he had not come among them. It is among such scenes that the object of his search is found.

The fish of all fish to him lives during the summer in the pellucid waters of these rivers; it is a fish full of caprices, artifices and wiles; a fish of wonderful strength and activity, a fish that cannot be conquered except by an adversary possessed of skill and sportsmanlike methods, to which must be added great powers of patience and endurance. But hundreds of abler pens than mine have well described the delights of salmon fishing, and I will not, therefore, longer dwell upon them here.

The days and weeks and months had passed away, and once again the time had arrived for an outing on the salmon river that we loved so much to visit.

After leaving the railroad we had a three hours' ride on buckboards over one of the roughest roads imaginable, before we reached the lake which formed the principal source of the stream.

Our party consisted of Judge ——, Doctor ——, and the writer. We were all enthusiasts with the rod, and our anticipations of sport were high, indeed.

The road terminated at the shore of the lake, and when the teams stopped at the landing-place we quickly alighted, and while the drivers were removing our rod cases and other effects from the vehicles we repaired to "the cove" at which we expected to find our guides, they having been notified of the date of our intended arrival, and they well knew the probable hour at which we should reach the lake.

THE LAKE.

At the shore we found one of them, François, a half-breed-French-Canadian and Indian, who had come over from Campbellton for this trip, and in a few minutes the other two men, the brothers William and Hiram who had for a number of years been with us on our salmon-fishing outings on New Brunswick rivers, reached the landing.

Hearty greetings were exchanged, of course, for we regarded our old guides almost in the light of comrades.

"Well, boys," exclaimed the Judge, "have you seen any fish"?

"Plenty sea trout," replied François.

"Yes," added Hiram, "and last evening we saw one salmon in the pool below the outlet; 't was not a large fish, but there 'll be bigger soon."

"They 'll be coming up before long," said William, "they 're waiting in the lower pools for rain; sure, 't is a dry season we 've had, intirely."

"Where have you pitched the tents"? I inquired.

"At the old spot, surely," replied Hiram, "we knew that it would seem like home to ye, the first night."

"That 's good," exclaimed the Doctor, "and now let 's lose no time in getting into camp."

The canoes were quickly loaded and, embarking, we soon were on our way down the lake to the outlet at which our first camp had for several seasons been made.

In the first canoe were the Judge and the brothers McDavie, and in the other the Doctor, François and I were placed, the party being divided as evenly as possible according to weight, the Judge and I being of pretty robust proportions, while the Doctor was the lightest of the party.

I plied the paddle in the bow of the canoe and François in the stern, and we kept along with the others fairly well.

The two short miles to our camp were quickly traversed and the white walls of our tents stood before us.

"By Jove"! exclaimed the Judge as he stepped ashore, "it seems incredible that a year has passed since we landed at this spot; how rapidly the time flies to us old fellows."

"Yes, Judge," added the Doctor, "and it flies more and more rapidly as the years roll on; not many more such outings as this will be vouchsafed us."

"Well, we 'll take all we can get," said I, joining the others at the main tent, "and we 'll get the most out of the present one, possible."

"Right," responded the Judge, "and now for a fish."

Below the great ledge which guarded both sides of the outlet was a descent in the river which made a quick fall of about eight or ten feet in height, and below this was a broad, deep pool, three good casts in width and at least fifteen rods in length. In this pool large numbers of sea trout were often found, particularly if the river was low, they being then unable to surmount the falls and reach the lake above; the shore on both sides of the pool was covered with pebbles and small bowlders, and as there was an abundance of room for casting it was an ideal spot for the angler.

We soon had our rods set up, and clambering down the ledge to the pool, the Doctor and I, followed by François, took one side, while the Judge, who with Hiram had crossed the outlet in the canoe, took the other shore. William, who remained at the camp, started a fire and began preparations for supper.

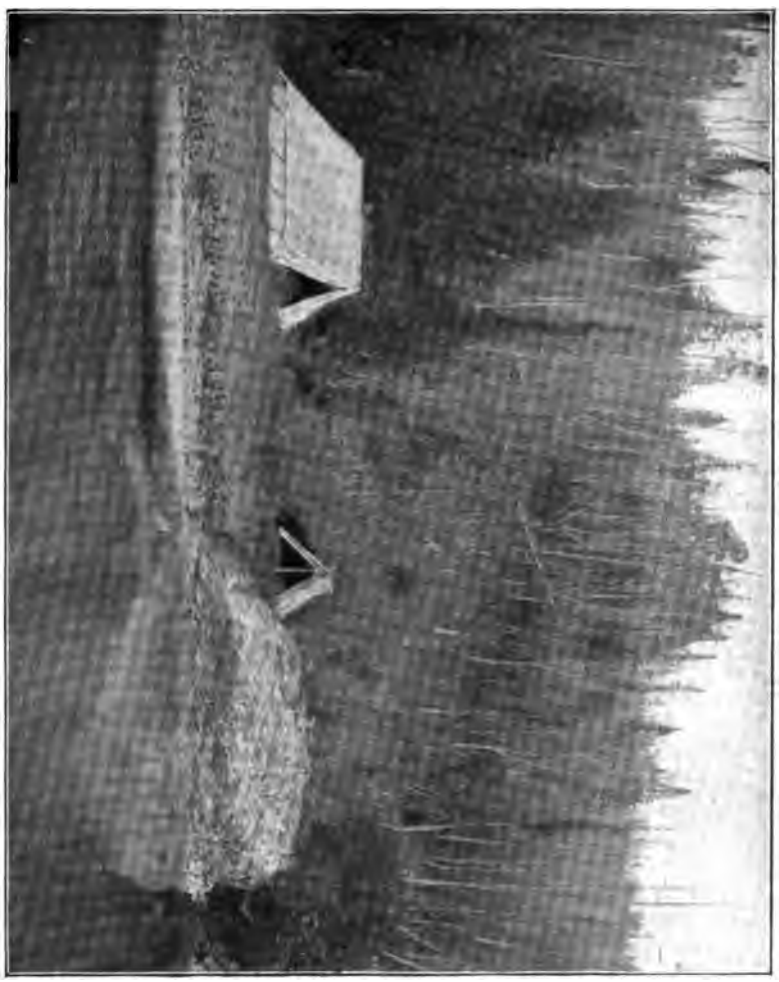

Photo. by E. A. Samuels.

THE WHITE WALLS OF OUR TENTS STOOD BEFORE US.

Photo. by R. O. Harding.

FALLS AT THE OUTLET OF THE LAKE.

The Doctor, who was well ahead of me, soon rose a handsome sea trout which quickly came to the landing net, and I followed him with another of about three pounds' weight in a few minutes.

"First blood," shouted the Doctor across the river to the Judge, who was busily at work casting a little farther down the pool.

"All right," responded our friend, "I want different blood if I can get it," and even as he spoke a swirl in the water below his fly was seen and the shriek of the Judge's reel quickly indicated that he had hooked a salmon.

Down stream the fish darted, the Judge following as rapidly as possible; back again and across the pool with the speed of an arrow it came, and jumping high above the surface it fell with a splash almost at our feet. It was a small fish, not over eight pounds in weight, but full of life and vigor. Back to the middle of the pool it returned, and after jumping once or twice it went to the bottom, where it sulked for a minute or two, motionless as a stone.

The Judge, however, lost no time with so small a fish, but as soon as his line was well packed on the reel he put the strain of his heavy rod upon it, and the salmon soon relinquished the fight and permitted the gaff to bring it ashore.

"Good," I exclaimed, "we 've fish enough for present needs, let 's have supper. I 'm fairly ravenous."

We returned to the tents, where we were soon joined by the Judge.

The salmon was a female, which accounted for the short struggle she made, the male fish, as a rule, being much the harder fighters; although she had lost the silvery brightness that she wore in her ocean home, she was in very good condition.

"Gentlemen," said the Judge, "we always pour libations to our first fish of the season. Join with me."

We accepted his invitation and drank to "success and good health in our outing."

Photo. by W. L. Underwood.

WHERE TROUT ABIDE.

The sea trout were soon broiling on a gridiron above a bed of coals, and they, with boiled potatoes, biscuit, and some excellent tea that the Doctor brought with him, he having a short time before received it as a present from a Russian friend who was an epicure in tea-drinking, made a supper that was enjoyed to a degree such as is known only by sportsmen.

The sun had now set behind the western hills, and the mosquitoes became very troublesome. The tar ointment was applied in a generous manner, and this, with the smoke from our pipes, kept our tormentors at a distance.

"What is it that makes such an outing as this so thoroughly enjoyable"? exclaimed the Judge, as we stretched ourselves in our tent upon the bed of boughs that the guides had made for us. "I have asked the question dozens of times, but have never had it answered satisfactorily.

We often undergo all sorts of hardships and privations, yet we return to the wilderness, year after year, with all the ardor and enthusiasm that we first felt, and we shall probably never lose our love for it."

"I suppose, Judge," said I, "that it is a natural instinct which is possessed by every one; life in civilization is artificial, and we all sometimes feel the inclination to yield to the charms which Nature presents to us; possibly it is a demand that our physical systems unconsciously make which calls us into such a life as this. We cannot surely with impunity always set aside the natural laws as we too often do in modern life, and we must accept our outing as an antidote for some of the evils of civilization; you, Doctor, must have had many opportunities in your practice to observe the baleful effects of our artificial life."

"Opportunities," replied the Doctor, "my practice gives me an almost endless series of them; man in civilization is the best example of the evil effects of antagonism to Nature one can find. Who are to-day among the busiest of workers in the community? The doctors, the dentists, the oculists; three fifths of my patients suffer from dyspepsia and its attendant evils; did you ever hear of a dyspeptic savage? I never did. The number of dentists is increasing to an appalling degree, and yet the teeth of our race seem to fail more and more surely, and it is not unsafe to predict that a coming generation will be toothless; did you ever hear of a savage with false teeth? I never did. Oculists are reaping a rich harvest, for our eyes are going to destruction, and already every tenth person wears or needs glasses; even young children are met with by the score who cannot see without them. Did you ever see a savage wearing or needing spectacles? I never did."

"But, Doctor," I exclaimed, "surely you would not have us return to barbarism, migrate to the tropics, wear clothes cut *décolleté*, and subsist on bananas and cocoanuts"?

"Hardly," he replied, with a slight chuckle; "a general return to primitive life is out of the question, of course; we exist under conditions which we have inherited and elaborated through so many generations that they cannot easily be thrown aside. No, we must endeavor to the best of our abilities to correct the evils which exist, and guard, if we can, against those which are likely to come. We are learning something every day, and by-and-by, perhaps, civilization will have some respect for Nature's laws and will endeavor to live up to them."

"The fact is," said the Judge, who had been quietly listening to the conversation, "we are as a people living at too rapid a rate; we are, in the eager scramble for wealth and position, consuming our nervous vitality with fatal haste, and if the struggle can be diverted, even for a period however brief, a great benefaction will be accomplished; it seems to me

NO OCCASION FOR ANANIAS.

that every effort should be made to promote and stimulate a taste for outdoor life, to encourage a love for athletic sports and endeavor to lead our overworked business men, both young and old, to take an interest in such employment as the rod and gun will furnish. Anything that will lead them out into the woods and fields is to be commended, for I believe it will be upon this that the future longevity, the vitality of the race will depend." *

"Man is a curious animal after all, Doctor," said I. "He somehow or other seems to do the wrong thing almost always, and some of the mistakes he has made have caused unmeasurable disasters."

"Yes," he replied, "and it seems incredible that some of the blunders should have been made. For example: — A few years ago a small number of rabbits were taken from England and turned loose in Australia. Some one thought, probably, that they would prove a valuable addition to the fauna of that country, but he evidently forgot the natural conditions of the animals' lives when he thus acclimatized them. Those conditions were, a cold climate during a good portion of the year, and the existence of many predaceous animals, such as foxes, weasels, stoats and rapacious birds.

* Since the above was written the following excerpt has appeared in type from a lecture by Dr. R. N. Kellogg, before the Interstate Civic and Philanthropic Conference:

"Our physical strength is decreasing. Luxury is on the increase; muscular development on the decrease. We eat too much. We shun physical exertion that would be beneficial. There is too much social excitement and too much education. Children are being overeducated, at the expense of the physical being. There is too much reading for the good of the nerves and the general health. Civilization promotes brain life at the expense of the body. Modern business, political, religious and social life is like modern education, strained, forced and harmful. Our business men rush and push and hurry, and drop off at forty or forty-five — just the time they should be at their best. A horse can walk all day, but he cannot gallop an hour. It is the rapid pace that kills." Commenting on this the Boston *Herald* says: "Everybody seems touched by the universal madness of the hour. Apparently the race is only working out some mysterious law of Nature; like any growth, it must fructify, wither and die. All this marvellous progression of the last five and twenty years is exhausting to the finite being. Mind and matter cannot endure constant friction without decay. One has n't to look far for examples, but it is not possible to halt. Education, overeducation, in fact, and luxury, the cultivation of tastes that beget æstheticism, sports and supreme exhibitions of physical endurance are one and all so many whips, lashing mankind into this pace that kills. It is very curious, this modern development of the race. It beggars that of old Egypt, of ancient Greece and Rome, and, in proportion, its effect will be more ruinous, the final catastrophe more overwhelming, because it is not one people, but the entire world that is involved."

The natural home of the rabbit being in such a climate, and all those means having been provided for keeping it in check, it could not in that country increase in sufficient numbers to become a pest; but when it was carried to Australia, it was placed where it could breed and thrive unstintedly, and none of its enemies were transported with it. You know what the result has been: the rabbits have increased in such overwhelming numbers that the country is injured to a prodigious extent. Whole tracts have been laid waste by the pests, and extensive farms and sheep ranches have been ruined. If Nature's conditions had been observed, the great evil that has been brought upon Australia would have been avoided."

"But, Doctor," said the Judge, "sometimes she makes mistakes; think of the thousands of species which have become extinct."

Photo. by W. L. Underwood.

INDIAN LUCK.

"Nature does not make mistakes," he replied quietly; "if species have become extinct, their mission has ended, or the conditions under which they were created, from some cause changed: we see those changes constantly occurring. Humboldt has said that wherever man appears on the earth, he provides the conditions for his own extinction in the destruction of forests. The wisdom of this statement is not generally appreciated, but the great scientist was right.

"Man is an improvident creature, and in his careless destruction of everything for present use, he takes no thought of the needs of coming generations, or ignores them entirely. 'After me the deluge' seems to be his motto, and he has lived up to it faithfully. His wasteful extravagance

is to be seen on every side. He has in many localities destroyed the forests, even those which covered the tops of hills and mountains,—agents that Nature provided to secure a proper rainfall for the valleys and plains,—and the result is the water supply has gradually diminished, until the plains which were before fertile, have become arid, unproductive wastes.

"Within the memory of all of us, the western prairies were covered with immense herds of bison, improperly called 'buffalo.' So numerous were they that their herds sometimes extended for many miles: their four-footed enemies had no perceptible effect upon their numbers, and even the Indians who killed them by thousands for food in their great annual hunts, could not exterminate them or even reduce them beyond their natural increase. But civilized man advanced toward them; a new enemy armed with a most destructive weapon attacked them, and in an incredibly short time they were extirpated, or practically so, there being but a few left in the Yellowstone Park and in private preserves, where they are alive now only because they are under protection. You see the conditions of Nature were changed in all these examples, and disaster has resulted."

"Nature's methods then, in your opinion, Doctor, are perfect, and cannot be improved upon."

"We cannot do without them, although we can undoubtedly obtain better results than she has given us; take, for example, the artificial propagation of the salmon. These fish, as you very well know, leave the ocean and ascend fresh-water rivers for the purpose of reproduction. When the proper time comes in the autumn they prepare spawning beds, and the eggs are dropped among the small pebbles and stones in the cold running stream, and are fertilized by the milt flowing upon them in the water through which it has been diffused. In this way probably not over five per cent. of the eggs become fry, the others are wasted. Now we can greatly improve on these results. We can take the spawn and milt from the fish, mix them together in a pan, and fertilize and probably hatch in properly constructed tanks of running water about every perfect egg. In doing all this we simply modify Nature's conditions, but do not abandon one of them, for we cannot possibly obtain the fry without fertilizing the ova with the milt, and we cannot hatch them in any but cold, clear running water, just as Nature does."

"Speaking of the extirpation of the bison," said the Judge, after a short pause, "it seems to me that, with the tremendous increase of hunters and the wonderful improvements which have been made in firearms, that splendid animal, the moose, is likely soon to pass away. I have never killed one and have no desire to. I should refuse to take the life of such a magnificent beast; but, unfortunately, there are few of my mind. I suppose, Doctor, you have had your experience in moose hunting."

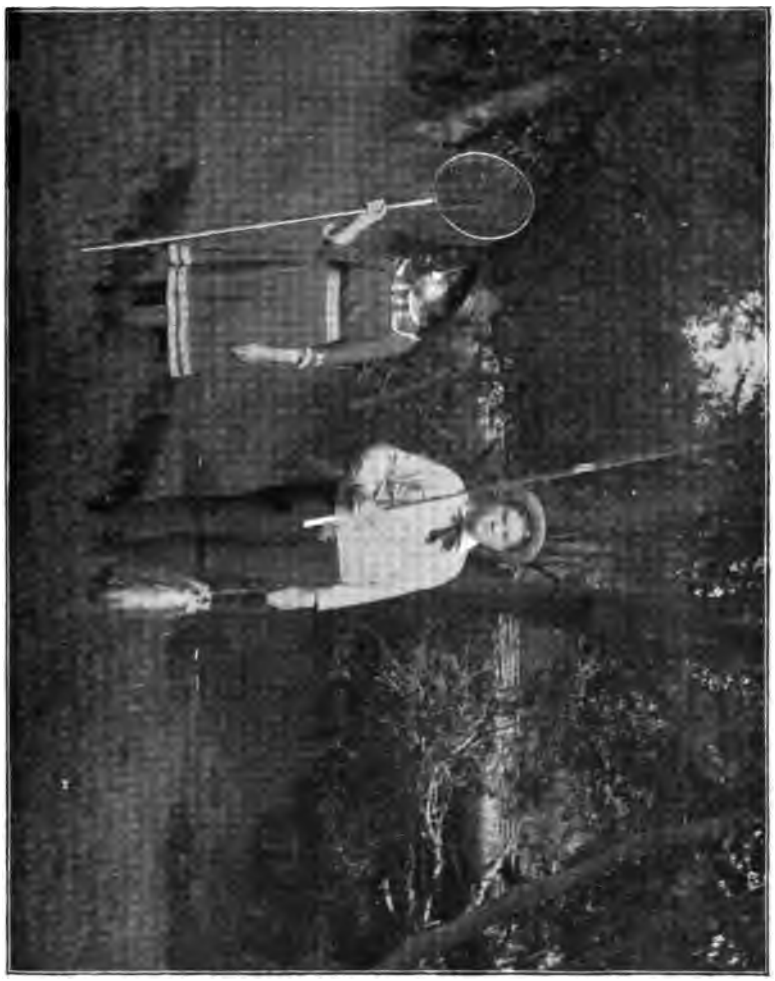

Photo. by E. A. Samuels.

YOUNG DEVOTEES OF THE ROD.

"Yes," replied the Doctor, "I have killed two or three, and, while I do not regret having done so, I shall probably never follow another. I have had my share. I have, however, studied the animals' habits somewhat, and am interested in every new fact that comes to light regarding them."

"I have never even hunted the moose," said the Judge, "and know but little regarding its habits; if you are not too tired, Doctor, I should like to have you give us a little account of the animal."

Photo. by Capt. Joseph B. Taylor.

A MONARCH OF THE FOREST.

"Really," replied the Doctor, "I don't know that I can tell you much that is new. It is the largest of American deer, and although widely distributed is confined, I believe, in its habitat to what may be called a comparatively northern range. It is found on the western coast from the shores of the Arctic ocean to the neighborhood of the Columbia river. Farther east its northern limit appears to be about 65 degrees, and thence throughout Canada and the northern districts of New England and in the maritime provinces it is more or less abundant according to locality, and its southern limit seems to be reached in the northern counties of New York, a very few probably being left in the most inaccessible portions of that section, and in Michigan and Wisconsin.

"It is characterized among the other deer by a very broad, elongated muzzle, which is covered with short hair except a small moist spot in front of the nostrils. The neck, as you know, is rather short and thick and is maned in both sexes, particularly the male, on which, in old specimens, there hangs below the jaw or throat a thick tuft called the 'bell.' The hair is thick and brittle, and the horns of the male are large and broadly palmated. The immense size of the animal, its weight reaching twelve or thirteen hundred pounds, and its height being sometimes six or six and a half feet at the withers, its comparative scarcity, the speed and facility with which it evades pursuit, and the ferocity, the vindictiveness with which, when wounded, it often turns on its pursuer, render it the great prize which ambitious hunters strive to obtain.

"Moose hunting, although often followed through the greatest privations and by the exercise of endurance and patience of the highest order, is generally conceded to be the grandest and most intensely exciting of all eastern American sports, and no trophy is more highly valued by the hunter than the head and antlers of this great deer.

"The moose is irregularly distributed and is not what may be called plentiful in any locality. In the New England States it is rarely found in northern Vermont and New Hampshire, but in the upper portions of Maine * it is fairly abundant, although it seems to prefer certain localities to others."

"In New Brunswick the heavily-wooded country in the interior is still plentifully supplied, particularly the region about the upper Restigouche and Miramichi rivers and their tributaries, a correspondent of *Forest and Stream* reporting that in a few weeks' outing last season in the neighborhood of Moose, Renous and Deer lakes he saw seventeen moose, three caribou and three deer, and 'jumped' twenty-nine moose, starting seven in less than half a day.

"The interior of Nova Scotia, away from the settlements, is generally

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*I know of no better way of showing, if not its favorite haunts, at least the localities which are most hunted by sportsmen than by quoting the railroad returns of the numbers of moose that were shipped from the various stations contiguous to the hunting grounds during the three months' season of 1896. These shipments undoubtedly represent the majority of the moose killed, although, of course, a number of others were consumed in the woods or were otherwise disposed of. The stations on the Bangor & Aroostook railroad, the new line which has opened up to the sportsmen a most magnificent region, together with the number of moose shipped from them, are as follows: Fort Fairfield, 1; Patten, 7; Sherman, 3; Stacyville, 6; Grindstone, 8; Millinockett, 2; Twin Dam, 4; Norcross, 13; Schoodic, 3; Milo, 2; Ashland, 6; Masardis, 24; Greenville, 27; and from other points on the line, 27; a total of 133.

The shipment from stations on the Maine Central railroad were from Farmington, 2; Oakland, 1; Enfield, 2; Lincoln, 1; Machias, 2. — E. A. S.

a good moose country, there being hardly any great stretch of forest in that province that does not contain them. In the wilderness in the lower half of the peninsula, however, they are more abundant than elsewhere, and it is rarely that the hunter fails to secure one in a week's outing in that delightful country." *

"There are several methods of hunting the moose, I believe," said the Judge, "I have heard hunters speak of 'calling and still-hunting' but there must be other ways in which the animal is pursued."

"Yes," replied the Doctor, "in addition to those methods the moose is often shot from a boat as it comes down to the shore of a lake or river to drink and feed, and it is killed by being followed persistently on the snow until it becomes foot-sore and exhausted. Of these methods still-hunting is in the opinion of many the most sportsmanlike, but calling the male in the rutting season is probably the method most in vogue. It is done by imitating through a horn of birch bark the note of the cow moose. I have had some experience in this sport, and on one occasion had quite an exciting adventure."

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* The following extracts from a letter received from Mr. John McV. Munro of Maitland, Annapolis county, Nova Scotia, a hunter and guide of many years' experience, give much valuable information in relation to the habits of the moose. — E. A. S.

He says: — "It selects for its yarding-place a swamp or a thick jungle which affords good cover, where it remains during severe storms and inclement weather. On fine days, however, it will often be found lying in the warmest side of the cover, enjoying a sun bath. When a severe snow storm occurs the moose often remains the whole day lying in one spot, and not getting up to feed. When hunger compels it to eat, it wallows through the snow in search of its favorite browse, such as the twigs, bark, etc., of the poplar, birch, white maple, withewood, and willow. When hard pressed for food it will devour almost any green substance, and I have known it to eat off fir boughs the size of my little finger; this, however, was when it had been followed by hunters until its legs and feet were sore and bleeding.

"One of its peculiarities is that it invariably lies down at right angles to the wind, so as to see to the leeward and scent to the windward. Some hunters claim that it always feeds to the leeward, but such has not been my observation, for I have found them feeding to windward as often as to the leeward. When it is through feeding it walks off to leeward a short distance and back again and then lies down to chew the cud. It feeds usually in the morning and at the close of the day, sometimes far into the evening; this, however, is in the more open country. I have known them to keep to the thick cover until evening and then to come out and browse, returning to cover for the night. If it hears an unusual sound it circles around until it gets the scent, and if it is from man, the moose vanishes.

"The calves usually remain with their mother through the first winter. On the approach of a severe storm the cow calls her offspring to her side

Photo. by E. A. Samuels.

CALLING A MOOSE AT DAWN.

"I was hunting in the neighborhood of Mt. Katahdin, and had as companion one of the most experienced and successful guides in the State. Although we had been in the woods several days, we had not seen or heard a moose, or in fact any other large game, and I had about determined that a change of locality had become a necessity. Early one morning, however, my guide, who was the most expert moose caller I ever met, succeeded in attracting the attention of a big bull, and soon we heard him crashing through the woods in our direction. On he came, bounding over underbrush and windfalls, uttering at intervals a peculiar, discordant note. With the guide I was ensconced in a little clump of sapling spruces, where I waited, with ready rifle, for a favorable opportunity for a shot. The guide repeated the call, and the moose drew nearer; the call was again given in a very low tone, and soon the huge animal came into view. He was a magnificent specimen, with very widely spreading and perfect antlers.

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by her usual long-drawn note, and they go to shelter in the thick fir or spruce undergrowth, the calves lying down in the snow to the leeward of their mother for the night, and, strange to say, they do not melt the snow beneath them as another animal would. I have often found the places where they had lain all night, and the snow was simply packed down, not melted at all. In December the bulls commence to hook the trees and stumps so as to loosen their horns, for after the rutting season is over they seem to desire to get rid of their weapons; during that season, however, they make a great display of them when called up, and I know of no animal that will start in on a fight with more determination to win than will a pair of bull moose. They rush together with a crash, and hook, push and jump sideways, trying each to obtain an advantage over his opponent, and the battles fought between them are savage and prolonged, and they often result in a serious injury to one or both of the fighters. In January the old bulls lose their horns, but some of the younger ones retain them until the middle of February.

"In the spring the cows search for a secluded spot in which to drop their calves. If possible they take shelter on one of the islands in the back lakes, but when this is not practicable they seek as retired a place as possible and removed from their usual feeding grounds. The cow usually gives birth to two young, although she often rears but one; for their great enemy, the bear, is ever ready to follow up the cow and claim a part or the whole of her progeny. I have often seen places in which such encounters have been held, and I almost invariably found a calf's skin rolled up as snugly as if the butcher had done it, the hoofs and a few of the hardest bones only being left with the skin. If the bear, however, delays his coming until the calf is three or four weeks old, he finds he is too late, for the calf can then run faster than he.

"In summer the moose are very fond of going into the water and feeding on the lily-pads and aquatic grasses, and they often immerse the head to obtain the roots of the yellow or cow lily. They usually remain in the swamps during the heat of the day and come out and feed in the cool of the morning and evening. In browsing they strip the leaves off

"I had raised my rifle to my shoulder, and was at the point of firing, when there was heard a cracking of sticks a short distance to the right of us, and in a moment a cow moose appeared upon the scene. She was, of course, instantly discovered by the other, and it took but a moment for him to join her."

"I 've called many a bull," whispered the guide, "but never a cow moose before."

"I made no reply, but again raising my rifle was about to draw the trigger when the smashing of sticks caused by some large animal was again heard in the direction from which the cow moose had come, and another male bounded through the thicket and joined the others.

"The scene that followed was the most remarkable that I ever witnessed; it was a battle that I shall never forget. In an instant the bulls came together with an impact that seemed to shake the earth; with a loud clash their antlers met and became interlocked, and then, straining every nerve and fibre and muscle, each of the savage animals tried to force the other backward or from his feet. Around they swung, now here, now there, sometimes the advantage being with one and as often with the other. Ever and anon their weapons became separated, and then the duellists sought by quick leaps and dexterous lunges to adroitly reach within each other's guard and strike a vulnerable spot.

"The agility, the celerity of attack and defence that were displayed in this battle were astonishing and hardly to be expected from such huge and

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the tender shoots with great rapidity, and on such food they fatten very quickly.

"It often seems to me that we have in Nova Scotia two distinct varieties of moose, one, much shorter legged and darker colored, with longer bell and narrower horns; it gets much fatter than the other, and is usually found in the hemlock lands. The other is longer legged, lighter in color, has much broader horns, and is found in barren and boggy lands; these are the most numerous, and their horns sometimes spread five feet across.

"The calling season is a time much enjoyed by the hunter, for no singer can furnish music that will stir one's very soul as does the distant note '*Boh*'! of the bull moose when he answers the hunter's deceptive summons. Although the animal often comes up on the trot ready to meet an expectant mate, he is sometimes not so bold, but will come only as far as he has good cover, and will then work around to the leeward and get the scent, when off he goes, his horns laid back on his shoulders, and in an instant he is out of sight. Calling moose is not a sure method, and I prefer the still-hunt, as it is much more sportsmanlike. Moose will sometimes yard quite near a settlement, and will become so accustomed to hearing the sound of the dinner horn and the watch-dog's bark that they are not disturbed by the usual sounds of every-day life, but their long ears and keen scent quickly warn them when danger approaches."

apparently clumsy animals. I gazed upon the scene almost entranced, — even forgetting that I had a rifle and was there to kill, — and if it had not been for my guide, who touched my arm and pointed to the cow that stood gazing stolidly upon the fight, I have no doubt that the duel would have continued until one of the bulls was conquered. The action of the guide and his whispered remark, "There is always a female at the bottom of all trouble," aroused me, and, aiming at one of the bulls, I fired. The discharge of my rifle alarmed the cow and she quickly disappeared in the forest, but the others paid no attention to the report and continued their battle.

"I thought for a moment I had missed my aim and was about to send another ball into my quarry, but he began to waver and stagger about, and soon grew so weak that the other forced him down and began viciously to gore him.

"Disapproving of such unchivalric conduct toward a conquered foe, but not wishing to kill the survivor, we emerged from our covert and advanced toward the bull, expecting that on discovering us he would take flight; but in so doing we made a serious mistake, for the moose turned like a flash, and charging upon us caught the guide before he could escape, and gave him a toss that I thought was fatal, and then swung for me. I had no time to take deliberate aim, but holding my rifle almost at arm's length I fired, and he dropped as if struck by lightning, the ball having pierced the thick skull at the only vulnerable point, and entered the brain.

"The guide was badly bruised, but not seriously injured, and he was in a short time able to dress the two carcasses."

"I 've had lots of scrapes with moose," he said, "but that was nearly the worst of all."*

"During the early part of the hunting season," continued the Doctor, "the moose is one of the most wary of animals, but after it has yarded and the snow has come it is much more easily approached. On discovering the hunter the animals separate, running from the yard in different directions with great speed. The sportsman then takes the track of one of the bulls and follows it patiently. This must, sometimes, be kept up for several days; no moose can stand continual tramping longer than five days, the first three of which he travels swiftly and easily, but the unprotected hoofs wear down rapidly, and by the end of the third day the feet will begin to bleed. In one or two days more the hoofs are worn out and the beast can go no farther. This method of getting moose is, of course, accompanied with considerable hardship, particularly if the hunter is not accustomed to long tramping; for he must move with all the celerity of which he is capable, from dawn until twilight, every day until his quarry is captured."

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* Reprinted from *Forest and Stream.*

AND GAVE HIM A TOSS THAT I THOUGHT WAS FATAL.

"That seems to me like too much hard work to be called sport," said the Judge. "I suppose there are some who like it, but I prefer taking my sport with less exertion."

"A good many moose are caught in snares," said Hiram, who with the other two guides were lying in front of our tent listening to our conversation. "Do ye remember, William, the moose we found rotten in a snare last year? Sure 't was a shame to have the big brute wasted."

"Yes, I well remember it," replied William; 't is a poacher's way, surely, and it 's a villanous way, too. The snare is made of a strong rope which is fastened to a large spring-up sapling in the places where Mr. Moose goes, and the leg of the animal is caught, and unless the poacher comes to kill it, the unfort'nit beast dies of starvation entirely. Sure I 've seen where the moose had devoured every sort of food that was within its reach, even the bark and wood of trees."

"Yes, 't is a blasted shame that the beggars will act so," added Hiram; "the same fellows will net and spear every salmon they can in the rivers, summers; sure they 're a great plague."

"Yes, Hiram," said the Doctor, "they 're bad men, but there are bad men everywhere."

"Moose ugly varmint, sometimes," said François; "um chase horse and wagon long ways up the Restigouche last year."

"Yes," replied the Doctor, "though ordinarily one of the most shy and difficult of approach of any of the denizens of the forest, the moose sometimes, particularly in the rutting season, attacks other animals, even man, without the slightest provocation, and the viciousness with which it handles its immense weapons and strikes and kicks with its fore and hind feet is impossible of description; and lucky, indeed, is the object of his malevolence which escapes without serious injury. I have known of several of these occurrences. On one occasion I examined a two years' old steer which had been thus attacked, and a more complete wreck could hardly be imagined. It was cut and torn in numberless places, one fore leg was dislocated, and it was almost disembowelled. It is needless to state that it was necessary to butcher the poor beast.

"The moose on such occasions seems to be attacked with a kind of phrensy, for its savage actions cannot be accounted for in any other manner."

"I have always questioned the accuracy of the stories which are printed in the papers every year about enormous moose being killed, weighing all the way from twelve to eighteen hundred pounds," said the Judge.

"Yes," replied the Doctor, "undoubtedly exaggerated accounts of the great size of moose which have been killed have been published. There

have been enough authentic ones recorded, based on actual weights and measurements, and not on guesswork, to give a good idea of what this monarch of our northern forests really is.

"A large moose, undressed, will weigh nine hundred pounds, a very large one, one thousand, and an unusually heavy animal will tip the scales at twelve hundred pounds. The height of such a specimen would be six or six and one-half feet. I have heard of a weight of thirteen hundred pounds being attained, but the record was not authenticated; the weight of the antlers of such a moose would be about sixty pounds.*

Photo. by Wm. T. Jenkins.

DID YOU EVER CATCH A MOOSE ASLEEP?

**Forest and Stream*, in its issue of January 23, 1897, describes an immense head that came from Alaska, as follows:— E. A. S.

"The skull has been split for ease in transportation, but fitting the two halves together, the spread of the antlers is 70 1-4 inches. The length of the right horn, measured from the brow antler to the most distant prong of the palm on the posterior side of the horn, is 55 1-2 inches; the length of the palm, measured along the curve, is 41 inches, and a straight line drawn from the burr to the most distant point of the palm is 40 inches. The circumference of the shaft of the right antler at 3 inches from the burr is 7 1-2 inches. The width of the palm, measured along its posterior side following the curve, is 43 inches.

"Another large head of a moose killed by Dr. G. H. Gray, of Lynn, Mass., at Togue pond, in the vicinity of Pockwockamus, on the west branch of the Penobscot, had on one of the antlers 21 points, and on the other

TENDERFOOT LUCK.

"It 's very queer," said the Judge, "but it is sometimes the 'tenderfoot' who gets the game. I have often known an amateur, in fact one who had never cast a fly, to go on a river and rise and hook a salmon at almost the first cast."

"Yes," answered the Doctor, "and it is not unusual for a tenderfoot to shoot a deer in his first day's outing, and I once knew of two young men who were absolutely beginners in hunting who actually called up and shot a handsome bull moose; there is no accounting for such luck, for it was nothing else; their 'calling' consisted of a number of unearthly noises which resembled anything but the call of the cow, but the bull came just the same."

"The moose is more local in its habits, I believe," said the Judge, when the Doctor had concluded; "that is, I mean it is not such a wanderer as the caribou."

"No," replied the Doctor, "the caribou is one of the most restless wanderers on earth; here to-day, there to-morrow, he is a pretty uncertain animal for the hunter's pursuit. The Woodland caribou is found more or less abundantly from Alaska to Newfoundland, and in some localities is still quite plentiful, as for example, the wilderness of New Brunswick and Maine. In Nova Scotia it is much less common than it was a few years ago and it is gradually decreasing in numbers. In the northern part of Cape Breton it is more abundant."

"It is a different animal from the so-called Barren-ground caribou or reindeer, is it not"? asked the Judge.

"Yes, the latter is much more Arctic in its habitat."

"Don't you think, Doctor," I asked, "that the Labrador caribou is the same as those found in Newfoundland? You know they cross on the ice in winter."

"Possibly it is," he replied, "Mr. Outram Bangs of Boston has studied these animals and he pronounces the Newfoundland caribou a distinct species from ours."

"In that case" said the Judge, "there are three species."

"Yes, but in New England, New Brunswick and Nova Scotia there is but one, I believe, the Woodland caribou. It is a wonderful example of the adaptation of form and habits to certain conditions. Think of an animal of the size of this handsome deer, one whose height is nearly, if not quite, five feet and whose weight sometimes exceeds four hundred pounds, that subsists almost entirely on lichens and mosses; it seems almost incredible, yet such is the fact. In winter it scrapes the snow away with its hoofs

17. The length of the blades of the antlers was 44 inches, and each had a width of 15 inches. The spread of the antlers was but 57 inches, but the spread of the brow antlers was nearly as great as at the widest point."

BARREN-GROUND CARIBOU.

WOODLAND CARIBOU.

NEWFOUNDLAND CARIBOU.

from the ground in search of food, and it then finds pretty 'short commons'; it fairly revels, however, if in its wanderings it finds a lot of old lichen-covered windfalls."

"One would hardly believe that there could be much nutriment in lichens and mosses," said the Judge, as the Doctor paused to replenish his pipe.

"Singularly enough there is," said I; "I have seen caribou which were absolutely fat that had probably subsisted entirely on that diet."

"Yes," continued the Doctor, the reindeer lichen, *Cladonia rangiferina*, seems to be pretty nutritious; in fact, I seem to be so regarded myself, judging by the attacks of these pesky mosquitoes! Let's have a smudge, boys," he exclaimed, addressing the guides, who were still lying outside our tent.

In a short time an old pan filled with burning chips covered with damp moss and turf, the smothered fire causing an intense smoke, was swung back and forth through our tent and then placed on the ground near by; the hordes of winged pests soon left us.

"The foot of the caribou," continued the Doctor, after we were again settled upon our fragrant couch, "is also wonderfully well adapted to the needs of the animal; the caribou is a great wanderer, particularly in winter, its meagre food supply necessitating a constant change of locality. Unlike the hoof of the moose, which as I before stated is poorly adapted to a long-continued journey on crusted snow, the hoof of the caribou in the winter increases in width, becomes concave, and its edges grow so sharp that the animal can rapidly travel on the icy surface of frozen rivers and lakes and on icy snow, the feet spreading out wide and acting almost like snow-shoes. A moose or deer could not long make its way in places where the caribou trots off with the greatest ease, and the quickness with which a herd of the wanderers disappears when alarmed is disgusting to the weary hunter who has, perhaps, been following them for many hours; they dash through the snow and over the ice like veritable phantoms, their sharp hoofs clicking like castanets as they speed away." *

* Mr. Munro, whom I have already quoted, sends me the following notes relating to the caribou in Nova Scotia. — E. A. S. He says: — "The caribou of Nova Scotia is altogether different in its habits from the moose; it is a great wanderer, and in my observation travels regularly from east to west in the autumn and from west to east in the spring. Its food consists of moss and lichens, and in winter it will paw the snow in the bogs to the depth of a foot and a half to obtain its favorite food, and it seems to know just where to dig to obtain it. Our caribou are usually found in low lands and in boggy places, but if its food is to be found in pine or white maple growths interspersed with low, wet swamps, it will often be found there. They usually inhabit the wettest swamps in

"There never seemed to me to be much romance in caribou hunting," said I, as the Doctor paused for a moment; "the pursuit of the moose, even the common deer, always carries with it a peculiar sentiment or ardor that caribou hunting does not awaken, but no doubt it requires as much skill in the hunter and possibly more patience and endurance."

"Yes," replied the Doctor, "as a rule the caribou is a difficult animal to follow, and if the herd is once fairly startled one may as well abandon the pursuit, for many miles will often be traversed before the fleeing animals will stop. At times, however, the herd will not take alarm even if the rifle has dropped several of its members. I have frequently had the animals pause to look at me, the report of my rifle not disturbing them, but if they are approached from the windward they are off and away in an instant; this, however, is the case with the other Cervidæ."

"The antlers of the caribou are very dissimilar," said the Judge; "I never saw two pairs that were alike."

"Yes, they vary greatly; the handsomest I ever saw came from Newfoundland, where this animal is probably more abundant than in any other locality. The does, as well as the bucks, carry antlers and use them, too, in defence of their young. The males use theirs viciously in the fights which occur in the rutting season, in September, and many a fine buck has lost his life in their fierce encounters."

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the hot weather; but when travelling across country they will often pass through the fields and near farm houses. This may sometimes be owing to their poor vision, for this seems to be very defective. Their sense of smell, however, is very keen, and their hearing is acute. When well to leeward I have walked to within fifty yards of them in plain sight, and I have had them approach me very closely, evidently from curiosity; when startled they can go as no other animal can. I know of nothing so fleet of foot. They usually travel in herds of from three to twenty, and are very seldom found alone. Their horns are smooth and gracefully curved, and they use their long, sharp antlers to defend themselves in the fights which frequently occur. In the months of September and October they move about restlessly in search of mates, for the older bucks will drive the younger males from the herd. They will sometimes be attracted by the moose call, and will come to within shooting distance; this has occurred here several times within a few years. The best way to hunt caribou is to still-hunt it, or to wait for it in runways, as they will follow old roads or paths for miles. The does go on islands in large bogs or lakes to drop their young, which usually occurs about the last of May or the first of June; the fawns, one or two in number, are defended with courage by the mother from their worst enemy, the lynx, or wild cat, which follows them stealthily and springs upon them when an opportunity offers; this is usually done in the night, and yearlings as well as fawns are often destroyed by the marauder. When a number of caribou are herded together one of them is constantly on the watch for approaching danger, and as soon as he lies down another will arise and act as sentinel."

"The caribou is strictly a northern animal, I believe, said the Judge; "I never heard of any occurring south of Maine."

"Formerly it was found in northern New York and in Vermont, but it no longer exists there. Alaska is well stocked with them and some of the upper Western States," replied the Doctor, "but I believe the species is not found in the 'Rockies.'"

"After all, Doctor," said I, "hunting our common deer gives pretty good sport. He is a dainty, handsome fellow, and his wide and general distribution makes him the most important of our large game."

"It 's the same animal, I believe, that we find in Florida," said the Judge.

"Yes," I replied, "and no species is better known or a greater favorite among hunters. It is the *Cervus Virginianus* of scientists and is very generally distributed, being found in almost every State east of the Missouri river, and is still quite plentiful in some sections, notwithstanding the inroads that are annually made among its numbers.

"In a great many localities, however, so persistently has it been pursued that where it was formerly abundant it is now quite scarce, and had it not been protected by law its total extirpation would probably in most of the States by this time have become an accomplished fact. In no State is this more apparent than in Maine."

"Yes," said the Doctor, "deer are as common in Maine as grasshoppers."

"True," I continued, "but forty years ago there were but few deer left within its borders; they had been slaughtered ruthlessly, in season and out, and so scarce had they become that their tracks, when occasionally found, were pointed out as being something quite remarkable, and the hunter who succeeded in getting a deer was considered fortunate in the extreme.

"It is different now: the strong protective laws which have been enacted are pretty generally enforced, and the deer have increased in such an astonishing degree that they are often seen in numbers about the settlements and the hunter has now but little difficulty in obtaining one or more in a day's outing. *

* Some idea of the remarkable increase of these animals in Maine may be formed when it is noted that the Game Commissioners of that State, in their returns for 1896, report that deer are now found in each of the sixteen counties of the State, and that complaints have even been made by farmers that their crops have been destroyed by them.

The Commissioners further say that "there is no question but that at least ten thousand deer have been killed in Maine during the year 1896. . . . this is not merely guesswork, but is based on actual count of the numbers transported by the common carriers, and records kept by various

Photo. by J. W. Bedelle.

IN THEIR SYLVAN HOME.

"North of the New England States but few deer are found. I believe there are none in Quebec except along our frontier; in New Brunswick but a small number are killed, and those in the regions near the Maine line, from which State they appear to come. In Nova Scotia there are none except those which were brought there and liberated by the Game Society two or three years ago, and their progeny. This province is well adapted to the deer, and probably if it is spared by poachers the forests will in a few years be well stocked. New Hampshire contains quite a number, and they are so abundant in Vermont that they are, in some localities, regarded as a nuisance by the farmers.

"The Virginia deer is so well known and its characteristics are so familiar that an extended description of it would almost seem superfluous.

"In summer the color of both sexes is a reddish-brown, except the under portions of the neck, body and tail, which are white throughout the year. Early in the autumn, after its coat has been shed, the reddish hue of the pelage is replaced by a blue or lead color, and the animal is then said to be "in the blue." Later the color becomes more gray, and this tinge remains until the succeeding spring. The color of both sexes is the same, and in winter the coat is much more dense than in the summer.

"The form of this deer is one of the most symmetrical of all our species, and the animal in its every movement is the personification of grace. The male alone bears antlers, and the number of prongs on them in a measure indicates the age of the animal: as, for example, a four-pronged buck is supposed to be five years, and a five-pronged, six years old. This, however, is not an infallible guide, for most bucks after attaining the age of six years do not add any prongs to their antlers, but rather increase their size and spread.

"The antlers are knocked off or dropped in January, and begin to grow again in early spring, and they attain their full size in July or August. The horns are covered with a soft, hairy skin, called "the velvet," until they are fully developed, when the covering peels or is rubbed off in scales and strips until the antlers are entirely denuded. The antlers are dissimilar in form, no two deer having them of like shape; this fact, however, holds good in all the Cervidæ.

"The male deer in the rutting season is a pugnacious beast, and the

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sporting-camp proprietors scattered over the State." One line alone, the Bangor & Aroostook railroad, reports that it shipped from its various stations in 1896, 2,245 deer, and the Maine Central in the same season carried 950. If we add to these the numbers that were carried by other lines of transportation and those which were consumed in the woods and elsewhere in the State we can see that the figures given by the Commissioners are not at all improbable. — E. A. S.

"IN THE VELVET."

Photo. by J. W. Bedelle.

savage manner in which he sometimes attacks other animals, even man himself, makes him a formidable assailant. I once had a pair that I kept a few months as pets, but the buck proved to be such a savage, treacherous animal, attacking every one he could reach, even his feeder, handling his sharp horns with the greatest dexterity, and striking with his fore feet in a most vicious way, that I had to dispose of them.

"The bucks, in the mating season, have fierce combats for the possession of the does, and sometimes these fights terminate fatally to both by reason of their antlers becoming so interlocked that they cannot disengage them, and they consequently die of exhaustion and starvation. Instances of the moose and caribou meeting their death in this manner have also been recorded.

"In the spring the deer browses on the tender shoots and opening buds and leaves of bushes and young trees, particularly birches and maples, and as the season advances it grazes on the grass and weeds that spring up in old logging roads, and in tracts of land that have been burned over. In the summer it frequents the forest, lakes and ponds, where it feeds on various aquatic plants and grasses. In settled localities, it is often seen in pastures quietly grazing with cows and other stock.

"In the autumn it browses on the twigs of young growth of trees and bushes, and in hard-wood forests it feeds greedily on acorns and beech nuts, and in winter it subsists on buds, mosses, lichens, and even, if hard pressed, the foliage of evergreen and the bark of hard-wood trees.

"The doe usually brings forth two young, or fawns, which are dropped in May or June. These are timid, beautiful little creatures, marked with white spots on their sides and in the highest degree graceful in all their movements. When young they often fall victims to the bear, fox, and "bob-cat," or Canadian lynx, the latter animal dropping on them from a limb of a tree that overhangs their path. In fact, the mother has been known to become the prey of the lynx, she being unable to shake off her savage and relentless assailant.

"The matured male deer, in good condition, weighs about one hundred and fifty pounds, a weight of two hundred pounds is not uncommon, and a very heavy animal will weigh two hundred and fifty or three hundred pounds, and even this has been exceeded.*

*A very large buck is described in the magnificent report of the N. Y. Commissioners of Fisheries, Game and Forests for 1895, as follows:—

"Weight before being dressed, 388 pounds; height over withers, 4 feet, 3 inches. There are nine prongs on one antler and ten on the other. Length of antlers, 32 inches; distance between antlers, 26 1-2 inches; length from tip of nose to tip of tail, 9 feet, 7 inches." The animal measured 37 inches around the neck, back of the head and the longest spike on one beam was 13 inches."

"Before the opening of the hunting season the deer is easily approached, but like most other denizens of the woods it is shy and wary when the sportsman is abroad; more so, perhaps, than most other animals, for it seems to have no friends, whatever. Gifted with remarkable powers of vision and hearing, the slightest unusual sound or motion arouses its suspicions, and at the first hint of danger it is off and away.

"The hunter, therefore, to be successful must be experienced in all the traditions and *finesse* of the chase, and added to these he must possess endurance and patience, a quick eye and ear, a ready hand, and instantaneous and certain aim.

"Among the methods by which the deer is pursued, stalking or still-hunting is the favorite, and this calls for all the best qualities of the hunter. He must rustle no dead leaves nor crack beneath his feet the sticks and twigs which cumber his path; he must, in short, be accomplished in woodcraft and be ready to meet his quarry at a moment's notice. Of course, in making his way through the thick jungle in which windfalls and dead wood abound, even the most careful hunter cannot move about altogether noiselessly, and his chances of obtaining a shot in such surroundings are much more doubtful than they are when an opportunity is given him in a cleaner cover or in following an old logging or 'tote' road.

"These paths, as you both know, often extend many miles through the forest, and they may be traversed, if a reasonable degree of care is exercised, in almost complete silence. I have, in thus cautiously following one of them, been able to approach within forty yards of a deer without discovery, and once was so fortunate as to "jump" and shoot a fine buck that was lying in a bunch of ferns hardly fifty feet from where I was standing. It was an incident a little out of the ordinary, an accident that might not occur again in a lifetime, and I always recall it with a sportsman's pride and satisfaction. I had been hunting ruffed grouse on that occasion and carried, instead of my rifle, a shot gun, the right barrel of which was loaded with an ordinary grouse charge and the left with an Ely's wire cartridge, a missile that speeds like a bullet for several rods after leaving the gun and then bursts and scatters like a charge of shot. This method of loading I often practise, particularly when I am in a deer country, for it enables me to be always ready for either large game or small.

"I had stopped to drink from a spring that bubbled up among some rocks by the side of the path, when, with a thundering whirr, three grouse arose and darted away, taking in their flight a course directly over the covert of the deer. I stopped one of the birds with my right barrel and was at the point of discharging the left at another when the deer dashed out of the ferns.

"That I was completely taken by surprise at his sudden appearance

goes without saying, and it is a wonder that he did not escape, but, in a moment, instinctively as it were, I diverted my aim from the grouse to the buck and he dropped ere he had gone two rods in his flight.

"In addition to the method of deer-hunting I have named there are others which are more or less practised. Shooting from a boat or canoe which is paddled along the windings of the shore of a lake or river is a favorite with many, being often quite successful and involving no laborious or difficult tramping.

"Tracking in a light snow is also a common practice, and in certain sections hounding is still in vogue, but it is discountenanced by the great majority of sportsmen and is illegal in many of the States.

NOT A SPORTSMAN'S WAY OF SHOOTING A DEER.

"Driving the deer into the water with dogs and then shooting the helpless game from a boat is also practised to some extent, but it is simply butchery and should be condemned. Hunting by 'Jacklight' at night is followed in some localities; to many sportsmen it is undoubtedly a most fascinating method, but it is a very destructive one and on that account is prohibited in Maine and some of the other States.

"My experience in jack-hunting is confined to that of a single night, but it is one I shall never forget.* It occurred during one of my outings, a number of years ago, in the famous 'North Woods.' A small party of us had been encamped for several days, subsisting on trout and the different 'store goods' we had brought with us. The supply of these, though abundant in quantity, soon grew monotonous in variety, and it was finally decided that nothing but 'fresh meat' could satisfy the cravings of our appetites. The term 'fresh meat' in the woods usually implies venison,

* Reprinted from *Forest and Stream.*

and it was decided by lot that I should procure it. In compliance with this decision I started early in the afternoon for my nocturnal hunt, accompanied by two of our guides who carried one of our canoes on their shoulders. Our objective point was a small lake some four miles distant in the wilderness, where it lay completely surrounded by mountains. It was a famous locality for deer, but was extremely difficult of approach, the path leading to it being of the roughest character imaginable, and an ascending one nearly all its length, besides. I am a fairly good pedestrian, but my enthusiasm was at a low ebb before the tramp was ended, and I have always had a doubt concerning the length of those alleged four miles. However, we reached the outlet of the lake at last, although it took us until dusk to accomplish it, and we began preparations at once for the night. Placing the canoe in the water, one of the guides lighted a small fire and boiled the tea kettle, while the other and I picked hemlock boughs and laid them for a bed. It took but a short time to accomplish this, and as soon as our supper was disposed of and we had a brief but enjoyable smoke, we were ready to begin the hunt. It was now quite dark, there being no moon and the stars shining but faintly through the thin haze which arose from the water.

"The 'jack' is a lantern very similar to some of the carriage lamps in ordinary use; it is attached to a staff in the bow of the canoe, and fastened behind it is a brightly-polished reflector which causes an intense light to be thrown in front of the hunter in an ever-widening swath, leaving him and the boat in obscurity.

"Our lantern was lighted and placed in position, and we embarked, I sitting in the bow of the canoe with my rifle laid across my knees, and one of the guides taking his place in the stern. The other man not being needed with us, remained at our camping place. As we moved like a phantom through the outlet and upon the lake, impelled by the silent paddle of the guide, the scene was weird and beautiful in the extreme. The foliage, illuminated by the brilliant light of the lantern, gleamed like silver against the dark background of the forest, every leaf standing out bright and distinct. The gnarled and twisted trunks and limbs of dead trees assumed many singular and fantastic forms, and ever and anon some wild bird or animal, alarmed at our presence, rustled away through the woods as we passed by. Occasionally a muskrat swam alongside the canoe and inspected us, evidently wondering at our being in that retired spot. Twice we passed through families of wild ducks, our craft almost touching them as we went by, and once we drew so near a great blue heron, which was standing on a jutting point of the shore, that I could easily have touched it with a trout rod if I had one. The lantern gave none of these wild creatures the least alarm. We had floated along the shore for nearly a mile before we heard our first deer. He was evidently

in the water feeding upon the leaves of aquatic plants, and as he walked about the splashing he made could be heard a considerable distance in the still night air. Slowly and silently we drew near the sound, and in a short time he was plainly visible.

"What a beauty he was! how large he seemed as the strong light fell upon him! Closer and closer did we approach, but he paid no attention to us other than to occasionally look at our light, which, however, he regarded with as much indifference as he would the rising moon. So stolid did he seem that I had almost begun to regard him as being stupid, but I was soon undeceived, for as I was at the point of raising my rifle he gave a shrill whistle, turned about as quick as a flash, and with three magnificent leaps disappeared in the forest. What caused his flight I could only conjecture. I certainly had made no sound, and the movements of the canoe had been absolutely noiseless. Possibly in our close proximity he had 'winded' us, or perhaps the vibration of the paddle in the water had been felt by him."

"Better luck next time," whispered the guide, "you waited a leetle too long."

"Yes," I replied, "I was not quite quick enough; the next one will not get away, you may be certain."

"The paddle was again resumed, the canoe following the sinuosities of the shore as it had previously done, and it was not long before we heard another splash in the water ahead of us. Drawing near the sound, we discerned two deer moving around, but as we approached them I discovered that they were a doe and a fawn, and of course declined a shot at them.

"A little further on we found another female with fawn, and it was not until we had seen at least a dozen of these that we discovered a buck. He was standing on the edge of the shore, his form showing plainly against the thick background of alders, the leaves of which he occasionally cropped and ate. Silently we drifted toward him, the canoe gliding with an almost imperceptible motion; he stood quietly, but evidently regarded our light with curiosity. At length, when we were, as I judged, near enough to insure a successful shot, I took careful aim and fired.

"How the report echoed and reverberated among the mountains around us! Back and forth it rolled, almost like a fusillade, for at least a minute, growing fainter and fainter until it finally died away in the distance. When we reached the buck we found he was quite dead, so quickly and effectually had the bullet done its duty. The hunting knife was now used in its allotted work, and placing our game in the middle of the canoe we resumed our course. Following along the shore, we passed several does and fawns, and two more bucks, but I did not try to shoot either of them, for we had all the venison that could be used.

"But I felt a desire to see as much of them as possible, and for an hour or two we paddled around, sometimes alarming them while a few yards away, but more often approaching so closely that in some instances I could almost have touched them with my rifle. At length, probably greatly to my guide's satisfaction, my investigations came to an end, and turning the canoe toward the outlet we soon reached the landing place, where, after hanging up the deer, we quickly joined the other guide on his bed of fragrant boughs.

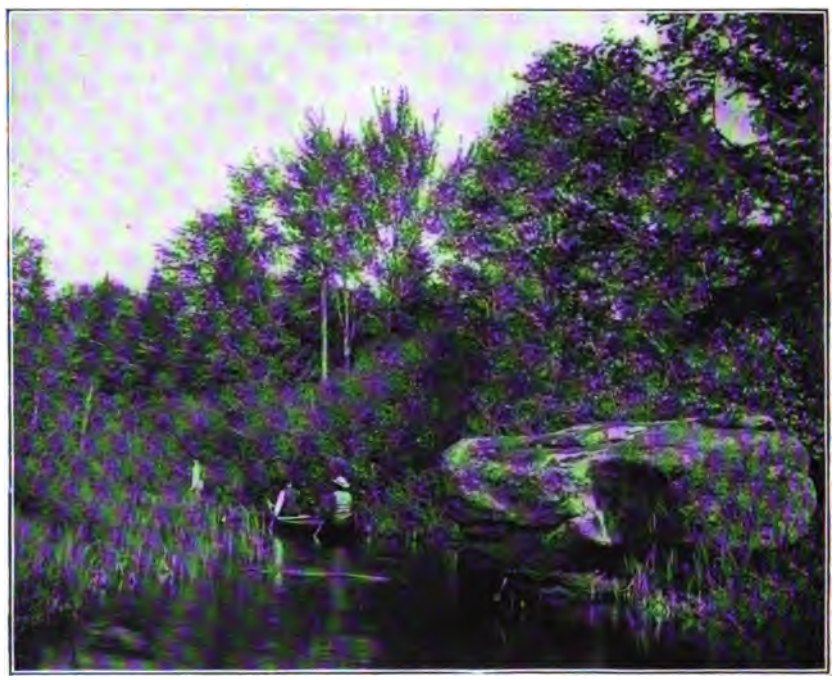

Photo. by W. L. Underwood.

A BEAUTIFUL FOREST STREAM.

"Before I fell asleep, however, in reviewing the events of the night, I arrived at the conclusion that I had not only no desire for any further experiences in 'jack-hunting,' but was convinced, judging by what I had witnessed of the ease with which the animals may be approached, and their utter unconsciousness of danger as they stand in the strong light of the lantern, that it is a method that all sportsmen should condemn, destructive as it must be if practised by reckless and unscrupulous persons.

"Our stay at the mountain lake was but a brief one, for we arose in the morning with the sun, and after partaking of a hasty breakfast, in which some choice bits of the venison played an important part, we started down the rough path for our 'home camp.' Our welcome was a flattering

one, but I received the congratulations of my friends with much greater equanimity than I would have felt had I killed the deer in any other way than by 'jack-hunting.'"

"But the Judge is almost asleep," I exclaimed, "and as it is growing late, we had better 'turn in.'"

My companions assented to my proposition, and soon we were stretched upon our blankets which were laid upon our bed of boughs.

For awhile I continued awake, listening to the music of the falls; the quavering cry of a loon on the lake, the melancholy song of the whip-poor-will, and the hoarse hooting of a great-horned owl that was flitting about our camp. My first night in the woods is usually a somewhat wakeful one, and the various sounds peculiar to the wilderness always attract my attention.

Often have I heard the beautiful song of the white-throated sparrow or Peabody bird, and the thrush late at night, and more than once have I been startled by the plaintive scream of the black bear, and the uncanny cry of the porcupine near my tent. Every sound made by the stealthy movements of the denizens of the forest seems greatly magnified in the night, and there is to me an indescribable fascination in listening to them. Sometimes they are weird and difficult to recognize. On one occasion that I well remember, I was kept awake a long time by what seemed the clanking of a chain near my camp. It was a sound that I could not understand or account for, and after awhile it made me nervous. Occasionally a stick would crack, and the movements of some animal in the thicket near by could be heard in connection with the rattling of the chain.

At last, unable to go to sleep, I aroused my guide who, after listening a moment, said it was "a dratted old lynx that had been hanging around that locality for a week or more"; its foot had been caught in a steel trap to which was attached a small chain which dragged behind him as he moved about, and it was the rattle of this that had kept me awake. "The critter is after some of our venison," said the guide, as he turned over for another nap, "but he can't get it."

The heavy breathing of my companions, the Judge and the Doctor, announced that they were asleep, and in a short time I joined them in the land of dreams.

CHAPTER II.

A BRIGHT AWAKENING. — GOOD TROUT FISHING. — A PAIR OF BEAUTIES. — A SURPRISE FROM A "LAKER." — LIFTING STRENGTH OF A FLY ROD. — SIZE AND WEIGHT OF TOGUE. — HOW TO COOK A "LAKER." — THE FOOD SUPPLY AFFECTS THE TABLE QUALITIES OF TROUT. — RAPID INCREASE IN WEIGHT OF TROUT AND SALMON. — ARTIFICIALLY REARED TROUT NOT AN EPICUREAN DELIGHT. — ARE SEA TROUT AND BROOK TROUT IDENTICAL. — LANDLOCKED SALMON AND THEIR PECULIARITIES. — THE CALIFORNIA SALMON AS A FRESH-WATER FISH. — WONDERS OF MODERN FISH CULTURE. — QUALITIES OF THE DANUBE SALMON. — SALMON RISING AT A LEAF. — A GRAND FIGHT WITH A TWENTY-POUNDER. — SPORTSMEN'S APPETITES. — HOW TO MAKE "A SMOKER" IN THE WOODS. — HABITS OF THE BLACK BEAR. — BEARS IN NOVA SCOTIA. — THE RACCOON AND HIS PECULIARITIES. — COON HUNTING. — THE RUFFED GROUSE OUR MOST IMPORTANT GAME BIRD. — HABITS OF THE GROUSE. — GREAT NUMBER OF GROUSE KILLED AND MARKETED.

WOODPECKER busily sounding his *reveille*, "*Rat-a-tat-tat*," on an old stub behind the camp, awoke me early on the following morning. I arose, and emerging from the tent gazed upon a scene such as every lover of nature delights in. The sun was just rising above the mountains in the east, tingeing the few clouds which hung in the horizon with purple and gold; the surface of the lake away in the distance was covered with a slight haze, above which the forest in the middle distance and the mountains far away arose in grandeur and beauty. Through the haze the cry of a loon was heard calling to his mate, and in the thicket near by the flute-like whistle of a thrush and the chatter of a pair of saucy squirrels who were scolding at our intrusion, were heard. The delicious fragrance of the woods, the wild flowers, the earth itself, was present everywhere.

Arousing the guides who were still soundly sleeping,— it is rarely, indeed, that a guide is out before me in the morning,— my companions and I went to a sandy point just above the outlet, where we enjoyed a glorious bath in the cool water of the lake. What a splendid tonic it was, and how fresh and invigorated we felt when it was ended!

Our breakfast was ready when we returned to the tents, and the fried salmon steaks, boiled potatoes, biscuit and coffee were discussed with the best of appetites. The breakfast over, we lighted our pipes and prepared for the day's employment.

"I suppose, Hiram," said the Judge, "that the river is rather low for us to descend in the canoes at present."

"Yes," replied the guide, "taking in the tents and all the supplies we 'll be well loaded, and there 's some pretty wicked rapids below in low water; we 'll have rain in a few days, sure, and it will not only rise the river so we can get down easy and comfortable like, but it will start the saumon."

"We might try two or three of the pools below the falls," added William, "there 's may be a chance fish or two in them."

"Well, we 'll give them a try, anyway," said the Doctor, "and I, for one, should like to stop here for awhile; we have an abundance of time, and this is an ideal camping place."

"Yes, Doctor," said I, "it is a favorite spot with me, also; I propose to let the Judge have the pools to-day while you and I go up the lake for trout; we 'll find some good ones at the mouth of the 'Big brook' and a trip up there will be delightful."

"Agreed," replied the Doctor, and in a short time Hiram, the Doctor and I embarked in one of the canoes, taking our light rods — for who would kill a brook trout with a salmon rod — and a landing net, and gaff, which Hiram prudently placed in the canoe, remarking, as he did so, that "A gaff is always handy, along, even if it is not needed; one never knows when he may want it."

Wishing the Judge "good luck" we were soon on our way up the lake, Hiram and I wielding the paddles. How I enjoy the canoe and how keenly I love to ply the paddle! Half the enjoyment of my outings lies in such employment, gliding over the bosom of the placid forest lake in the buoyant craft which has never been surpassed, in model, by the handiwork of civilized man.

The forest, the fleeting golden clouds, the distant mountains are all beautifully mirrored, and one seems almost to be floating on air. The mists on the lake were soon dispelled by the rays of the sun and nothing marred the beauties of the scene.

"This is solid comfort," exclaimed the Doctor, who was enjoying his pipe as he sat in the middle of the canoe. "If there is any pleasure that matches this I have yet to find it."

"You 'd tire of it, sir," said Hiram, "if you had nothing else."

"Perhaps," replied the Doctor, "but I never yet had enough of it."

"Had n't we better stop at the 'Sunken Ledges'"? asked Hiram; "there should be some trout there, and they 'll come to the fly, no trouble" (no doubt).

The "Sunken Ledges" was a group of bowlders and rocks, perhaps caps of ledges extending for an eighth of a mile in the middle of the lake,

and covered by a depth of from two to twenty feet of water; they were frequented by various kinds of small fish, and trout lurked among them in the pursuit of food.

"Yes," said I "if the Doctor is willing; we ought to get some good fish there."

The killick was dropped about midway of the shoals and we began casting. There was a very light ripple on the surface of the lake, just enough to make good casting water, and the Doctor soon rose and hooked a trout, and a handsome fish it was, of about two pounds' weight. It gave him a very gamy fight and refused to come to the landing net so long that I began to think it was "hooked foul."

Photo. by Richard O. Harding.

IT GAVE HIM A VERY GAMY FIGHT.

After a few minutes' struggle the Doctor increased the strain of the rod, giving the fish "the butt" for all the tackle would stand; at length the trout weakened and it was apparently ready for the landing net when a fresh strain was felt, a commotion in the water was seen and the line ran out rapidly, causing the reel to sing right merrily; another and larger fish had taken the second fly.

"You 've got a pair, Doctor," exclaimed the guide.

"Yes, and a good pair, too," I added; "your light rod has its work cut out for awhile."

As I spoke I carelessly laid my rod down, thoughtlessly allowing my line and flies to sink in the water while I filled and lighted my pipe.

The Doctor made no reply, but lifted on the rod with all the strength he dared to exert.

"It 's mighty fort'nit, Doctor," said Hiram, "that you have a good strong casting line; sure, a common trout leader would n't stand that strain"!

"I never take any chances with light casting lines," replied the Doctor, "there are too many large fish in these waters to permit the risk. Come, my frisky beauties," he exclaimed, as the fish darted down again, "Come up here out of the wet."

The steady strain of the light rod at length proved too great for the fish, and yielding, inch by inch, they were at length drawn to the side of the canoe and Hiram deftly secured them with one sweep of the landing net.

"Ha, ha"! exclaimed the guide; "but they 're beauties, the biggest one 's a three-pounder, at least."

"Yes, it 's a handsome pair for this section, but not to be compared with Rangeley trout," said I, "many 's the pair I 've taken that would beat it, and I have known of pairs weighing ten pounds and more being taken, and on a six-ounce rod at that."

"Sure, they must give great sport," said the guide, packing the trout in the stern of the canoe among some green ferns or brakes, which he had prudently brought with him from the shore, "but these are good enough."

"Well, I 'll try my luck again," said I, "but I don't expect a pair like yours, Doctor," and as I spoke I lifted my rod with the intention of beginning to cast once more. I had raised the fly but a few inches when it apparently caught some obstruction; giving it a slight twitch I found it immovable.

"This is bad," I exclaimed, "I 'm fast to a rock or piece of drift stuff on the bottom. It was careless of me to permit my line to sink in such a manner."

I pulled and tried in every way to release the hook, but it was fast, and I had about made up my mind that my casting-line would prove a total loss, when Hiram exclaimed, "Sure, you 're not on bottom at all, you 're fast to a fish."

As he spoke the line began to run out, and apparently a very heavy fish was hooked.

"Good"! exclaimed the Doctor, with a true sportsman's unselfishness, "I hope you 've a pair as good as mine."

"I don't know about that," I responded, "but at all events I have something that is very strong."

The fish, refusing to yield an inch, began to move off, my line running out at a rapid rate.

"Haul in the killick, Hiram," exclaimed the Doctor, "or he 'll take the line."

The killick was quickly lifted, and the canoe followed the fish as it moved away from the ledges.

"What are you fastened to, anyway," asked the Doctor, as we were almost being towed around by the fish; "it does not act like a trout."

"If it 's a trout, it 's the father of them all," said Hiram, plying the paddle, "but he does not play like one; he hangs down too much to the bottom, but he pulls like a bull dog."

For many minutes I gave the fish all the lift that my tackle would bear, but he was unconquerable. The fight was kept up until we had drifted from the ledges nearly a mile, the fish keeping down deep in the lake until my line was nearly all off the reel.

"That is no trout," exclaimed the Doctor; "it must be a water horse, judging by the way it pulls."

At length, after a good half hour had passed, the fish began slowly to yield, for the strain of a rod, even a light one, is very great,* and as he slowly arose to the surface I packed my line on the reel as rapidly as possible.

At last the fish came to the surface, and after a few struggles it lay on its side and permitted Hiram to use the gaff, which he had so wisely brought in the canoe.

"Ha, ha," chuckled the guide, "a landing net must be a big one for such a fish; lucky it was that I brought the gaff."

"Just as I suspected," said I, as Hiram killed the fish and then held it up for our inspection; "it 's a tuladi, or togue."

"It is, upon my word," exclaimed the Doctor, pointing to the forked tail of the trout; "I did n't know there were any here."

"Oh, yes," said Hiram, "we call them lake trout; we don't get many of them, and I never before knew of one taking the fly; sure he 's a homely cuss, anyway, and his mouth is big enough to swallow a duck."

The fish was of a grayish color on the sides with a few spots and mottlings, the back was of a dirty greenish color, and the belly was nearly white. We weighed it and found that it registered about twelve pounds.

"That 's a pretty good sized 'laker,' said the Doctor, as Hiram packed the fish with the others, "but he is not large when compared with some of the togue which are taken in many of the New England lakes."†

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* An instance has been recorded of a strong man, an expert swimmer, being unable to overcome such a strain, although he made repeated efforts and put forth the greatest exertions. — E. A. S.

† A togue was taken in Moosehead in 1896 which measured forty inches in length and weighed twenty-nine pounds. Record is made, how-

"He was a good fighter, altogether," said Hiram, as he resumed the paddle and turned the canoe towards the head of the lake.

"It was a stubborn, dogged kind of a fight," added the Doctor, "a strong, heavy pull, but not a lively one. I suppose it 's the same fish that is found in the Winnipesaukee, Moosehead, and many other large, deep lakes."

"Yes," I replied, "the 'togue,' 'tuladi,' 'salmon trout,' etc., are all the same species. They love the deepest water and are rarely taken except with bait; trolling with the minnow is the favorite method. Many are taken in winter through the ice with set lines baited with shiners, and at that season the fish are in the best condition for the table, although to my taste they are never to be compared with the 'square tails.' We 'll have this one boiled, for no other method of cooking makes it eatable.

Photo. by W. L. Underwood. AN IDEAL TROUT STREAM.

"It spawns in November along the shores of the lakes, not going into running water like the brook trout, although the latter often spawn in the lakes, there being many celebrated spawning beds in the Rangeleys. It is not a desirable species at all, although to some it furnishes in the absence of better fish a fair degree of sport."

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ever, of a larger one which was once captured in Grand Schoodic lake; it was forty-one and one-half inches in length, with a girth of twenty-four inches, and it weighed about thirty-five pounds at the time of capture.

The canoe had now reached the mouth of " Big brook " and we soon were busily at work among the spotted beauties; they were not large fish, their average weight being not over three-fourths of a pound, but they came to the fly in such numbers that we usually had pairs on our lines, and Hiram literally had his hands full in landing our fish.

A goodly number was taken when the Doctor exclaimed, " Enough is as good as a feast! We 've all the fish we can possibly eat."

" Right, Doctor, you are," said Hiram; " we cannot use any more, and it 's a sin to kill for waste. It 's noon, all right; don't you think we had better go back to camp for dinner "?

" Yes," replied the Doctor, reeling up his line, " the Judge will be waiting for us."

The prow of the canoe was headed down the lake, and, propelled by our vigorous paddles, was in a short time at the landing place at the outlet.

" What luck, boys "? exclaimed the Judge, as we stepped ashore.

" A Togue, by All that 's Wonderful."

" Good," replied the Doctor; " we 've all the trout we can use, and have enjoyed a fight with an old sinner."

" What do you mean "? asked the Judge.

" See here, sir," said Hiram, holding up my big fish.

" A togue, by all that 's wonderful "! exclaimed the Judge. " I did not know there were any here. Well, I cannot congratulate you very much except that you 've killed him; he is a poor fish, to make the best of him."

"Not so bad, Judge" said I, as you will admit when he is boiled."

"I never relished one," he replied, "except in a chowder, and almost any kind of fish will go in that."

"What luck have you had"? asked the Doctor.

"Nothing but a few sea trout; I rose a small salmon in the second pool once, but he refused to come again; the water is very low and bright."

Dinner was soon ready and we did it full justice. After the meal was disposed of we stretched ourselves upon the dry pine needles in the grove behind our camp, and lighting our pipes we entered upon the discussion of fish and game, which always seems inevitable in the woods.

"The trout in this lake are always fat and of good flavor," said the Judge. "It is astonishing what a difference there is in the table qualities of trout in different waters."

"Yes," said I, "but it does not always depend on the food supply. I have taken trout in ponds in Prince Edward island which were actually unpalatable; they tasted muddy or boggy, and the flesh was almost white; they had a good supply of food, for the water was full of insect life and minnows, and other small fish were abundant, but for some reason the trout lacked fat and the proper flavor."

"Yet it is upon an abundance of food that the epicurean qualities of the trout generally depend," added the Doctor. "A half-starved trout will not take on fat, and without fat the fish has no flavor."

"True," said the Judge, "and it is upon the abundance of food that the quick growth of the fish also depends. I never believed that the great

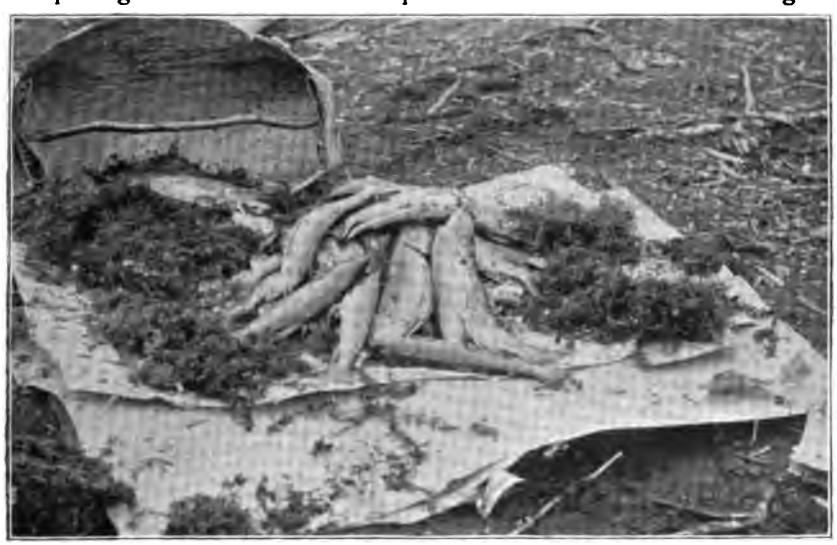

Photo. by E. A. Samuels.

"LITTLE MOUNTAIN BROOK TROUT."

trout of the Rangeleys were necessarily scores of years old, as some claim they are; they have an enormous food supply."

"You are right," said I, "I 've seen minnows so plentiful in those waters that they actually seemed like clouds or masses of drift stuff moving through the water; millions seemed to be in some of the schools; with such an abundance of food any suitable waters can grow large trout. I was reading last spring a report of the discussion of the American Fisheries Society at the meeting in 1896, in which one of the speakers stated that he had raised a brook trout which, in three years from the egg, weighed four pounds and ten ounces! Think of a trout only three years old weighing almost five pounds."

"Of course it was reared and fed artificially," said the Judge; "liver-fed trout grow rapidly, I know, but they have n't the flavor of the wild trout; there 's nothing, in my opinion, like the little mountain brook trout."

"I know that," I replied," I am simply showing that the great increase of size in the fish depends on the food supply. I well remember a captive trout we had at home, in my boyhood days, which we kept in a large deep spring which supplied, through pipes, our own and some of the neighboring families with water. The water of the spring was as clear as crystal, and the trout had for food only such grasshoppers and other insects as fell into the water. That trout weighed about a half pound when it was put into the spring; it lived there about three years, and in all that time it did not gain an inch in length or two ounces in weight. It actually barely kept alive."

"In the pure cold water of the spring," suggested the Judge, "there were no aquatic insects or crustaceans, and the trout must have had a pretty slim diet."

"Precisely," I replied. "Now if that trout had had access to those Rangeley minnows it would have increased in weight, well, say at least a pound a year. I often visited the spring and dropped into it a grasshopper or cricket, and it barely touched the water before it was seized by the hungry fish, and I have had him come up with a dart and take food from my fingers."

"The artificially-reared trout seem to meet the wants of many," said the Doctor, "but I never cared for them; in fact, I don't want any unless they are taken from such water as ours were to-day; the flavor of such fish is delicate, the meat is red and with the proper modicum of fat in it."

"Yes, but they are not gastronomically as good as a fresh-run sea trout," said the Judge.

"Well, Judge," replied the Doctor, "I have yet to be convinced that they are not the same fish. We have taken hundreds every year of so-called sea trout, which had been in the river so long that they had lost

most of their silvery brightness, and had taken on the brown and yellow livery of the brook trout. Now we have had this discussion more than once, but neither of us has been convinced, and you know very well that you have tried repeatedly to identify the sea trout, and you were not infallible."

"I 've about come to the conclusion," said I, "that the sea trout and brook trout are identical, although in years past I have believed they were two varieties, and thought I could prove it. The fact is, I believe that some trout are anadromous, and some not, even in the same river, just as some salmon never go to sea, but instead, repair to the deep waters of the lakes, coming from them only in the spring for food, and in the fall to spawn. Take, for instance, the Ouananiche and other so-called landlocked salmon, that are not landlocked, and probably never have been; they can go to the sea if they wish, but for some reason the anadromous habit has left them, or at all events they do not possess it. Some scientists believe that the salmon was originally a purely fresh-water fish, and that the sea-going habit was acquired. Be that as it may, we know that it often becomes a permanently fresh-water fish, although not compelled to, and why is not the brook trout in the same category"?

"Anatomically the sea and brook trout are similar, at all events," said the Doctor.

A Lively Sea Trout.

"We have examples of the change of habits of fish going on all the time," I continued. "One of the most interesting is that given by Dr. Bean, in his translation of the essay of Dr. Jousset de Bellesme, the direc-

tor of the Aquarium of the Trocadéro in Paris, published in the 1896 Transactions of the American Fisheries Society. In that pamphlet is an account of the raising of the California salmon, *Salmo quinnat*, in fresh water; its repeated reproduction without going to the sea, and what is remarkable is the fact that the spawning is as ample as it was at the beginning. The Doctor further says that this salmon is susceptible of culture in ponds; in fact, his numerous experiments prove that it thrives in them remarkably well.

"Now here is a sea-going salmon losing its anadromous habits entirely, just as our Atlantic salmon has lost its, as in the examples of the so-called landlocked salmon of New England and Canada.

"I have noticed, however, that unless an abundance of food is obtainable the species degenerates in a marked degree. In the sixties I used to fish a good deal on the Grand Lake stream for the 'landlocks,' and they were small fish, averaging not over two pounds in weight, but they have steadily increased in size, for wherever the smelt has been introduced the fresh-water salmon have increased in weight. The Maine Commissioners have wisely adopted the policy of placing the smelt in waters which they have stocked with salmon, and there is no reason why, by-and-by, we may not take fresh-water salmon as large as the Atlantic fish; in fact, a salmon was taken in the Rangeley lake last spring that weighed thirteen and one-half pounds, and many others nearly as large have been killed, and according to the Report of the Maine Commissioners a few have been taken at Raymond which would tip the scales at twenty pounds."*

"The Maine Commissioners have done grand work for the game and fish of that State," said the Judge, "and all sportsmen should give them proper credit for it."

"Yes," added the Doctor, "and they, with others working on the same lines, have solved one of the great problems of food supply that have long been studied by economists, and with no small degree of anxiety. Our rivers and lakes had become depleted by reckless overfishing, and even the ocean had ceased to yield its crops in the abundance that it formerly afforded."

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*I cannot refrain from quoting from the 1896 Report of the Maine Commissioners, the following. — E. A. S.

"The landlocked salmon have thrived and multiplied wonderfully in many new lakes and ponds where they have been introduced within the last ten years. In some of these, so much so, that we have been able to procure a goodly number of eggs from these fish. They grow very fast, and, in good waters with plenty of feed, very large — in some cases attaining a growth of twelve pounds in six years. We believe they are to be the coming and favorite inland fish in Maine.

"They are now caught more or less, and increasing year by year, in nearly all our large lakes and ponds. There are hundreds of ponds in

Photo. by J. W. Beddle.

A HANDSOME RANGELEY LAKE SALMON.

The Doctor was right.

The destruction of fish kept pace with that of game. The net and seine and spear, and every other engine of destruction were employed at all times and seasons, and rivers which were once teeming with salmon and other valuable fish, became exhausted of their supply. The increase of these fish under natural conditions is so small, that even if a few breeding fish were to escape their enemies, they could not keep the rivers stocked, and the result has been that in many magnificent streams they were absolutely exterminated. Those rivers are now, thanks to perfected fish culture, again bountifully stocked, and the good work is going on in all directions.

The success attained in the propagation of these fish is now so great that, as already stated in a preceding page, probably ninety-five per cent. of the eggs become fry; a proportion great, indeed, when compared with nature's results of about five per cent.

The process of artificial impregnation of the spawn is very simple. When the female fish is ready to extrude the eggs, she is held under the left arm, or between the knees of the operator, who passes his hand along the abdomen, gently squeezing the eggs from her into a pan; the milt is then added to them in the same manner, and the mass is stirred for a short time until every perfect egg is impregnated. The fish are not injured in the slightest degree, but, as soon as they are "stripped," are returned to the water and allowed to escape to their ocean homes. The eggs are now placed in trays in the hatching houses, through which a current of clear water is kept in motion, and the only attention they require is care in keeping all sediment and uncleanliness from them, and providing them with a constant supply of water.

The Canadians have had great success with their hatcheries, most of which are elaborate and expensive affairs. I have visited a number of them, as well as several of our own, and was deeply impressed with the magnitude of the work that is being done. One of the finest hatcheries in the Dominion is at Dee Side, on the Upsalquitch river, about fifteen miles from Matapedia, in Quebec, where over 2,000,000 salmon eggs are handled annually. The hatcheries on the Miramichi, near Newcastle, and at Sydney, Cape Breton, are also very complete establishments, their annual product being about 1,500,000 fry.

In the various houses in Maine and other States there are also great numbers of salmon and trout propagated, the score running into the millions, and at Wood's Holl, in Massachusetts, where sea-fish are handled,

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Maine adapted to these fish, which we are stocking as fast as our limited means will allow. They will live in warmer water than the trout and thrive with the pickerel, but the lakes, to be successful, should contain deep, pure water."

Photo. by E. A. Samuels.

TAKING SALMON SPAWN.

there were hatched last year, in addition to other species, 70,500,000 eggs of the cod, and 71,000,000 of the lobster.

The returns from the artificial propagation of the salmon in a money point of view are very great. In the Penobscot river — a stream that had become almost depleted — there are now taken in the weirs of the river and bay over 12,000 salmon annually, which are sold at prices ranging from 25 cents to $1 per pound. The yield is even greater than this on some of the Canadian rivers, the number of fish handled at Newcastle and Chatham on the Miramichi being on the average not far from 600 per day throughout the fishing season. In Europe the outcome has been even more remarkable. Streams that had been rendered absolutely unproductive by overfishing, have been artificially restocked and maintained, and now yield handsome returns.

The little river Spey, in Scotland, which, prior to 1854, contained no salmon, is now so abundantly stocked that a single fishing station on it yields to the Duke of Richmond an annual income of upwards of $60,000, and the aggregate product of the other rivers of Scotland and Ireland now gives a revenue of over $7,000,000. In Continental Europe, also, great attention is paid to fish culture.

"The French have taken the lead in fish culture," said the Judge. "Some of the work they have done is wonderful. In fact, it is to that country that the modern methods of artificial propagation owe their existence, the great government hatchery and ponds of seventy acres in extent at Huningue, near Basle, which were established in 1852, being the first of the kind in the world. So valuable has been the work done at this hatchery that the annual increase in the product of the fresh-water fisheries is now estimated by some French statisticians as being worth at least $4,000,000, while others place it at even higher figures.

"The salmon that is chiefly propagated on the continent is different from the sea salmon of Great Britain and this country. It is called the Hucho, or Danube, salmon, and is much prized on account of its great size and fine flavor. It attains a weight of upwards of 200 pounds without visiting the sea, will accommodate itself to any circumstances, will even flourish in a reservoir, and it grows and fattens with the greatest rapidity.

"It is by many considered one of the most valuable of fresh-water food fishes, and the wonder is that it was not long ago transplanted to this country. The eggs are easy to be obtained, and may be safely brought to this country, salmon eggs having been successfully carried from England to Australia and Van Dieman's Land, and there is absolutely no obstacle in the way of introducing it here.

"Surely no better investment could be made by our National and State commissioners than in a few thousand of these eggs every year; the

fry would thrive in lakes and ponds in which trout and ordinary salmon could not exist, and in maturing would soon furnish not only an abundance of acceptable food, but would give anglers recreation in waters which now contain nothing but insipid or worthless species. Unlike the Atlantic salmon the Hucho spawns in the spring, and the eggs mature much earlier than those of the other species."

"The eggs of the salmon are wonderfully tough," said I, when the Judge had ended. "Nature provided wisely for their preservation in the rough usage they are subjected to among the stones and pebbles of the river bed. Frank Buckland, one of the most careful of observers, in a series of experiments with salmon eggs, found by placing iron weights on individual eggs that they were not crushed until he had placed no less than five pounds, six ounces on them."

"It 's wonderful," said the Judge; "but, as we said last night, Nature looks out pretty well for all her creations.

"It 's always seemed strange to me that sea salmon do not generally feed while in fresh water. I suppose I have examined the stomachs of hundreds, and in none did I find food."

"Probably that is because they do not find the food to which they are accustomed," I replied; "yet that is not the exact reason, for there are shiners and dace in the salmon rivers, and they resemble in appearance, somewhat, the smelts and small herrings upon which they feed in the ocean. We know that salmon have been caught on trawls, baited with herring, in twenty fathoms of water, at George's banks and elsewhere; and we are informed by Dr. G. Suckley* that in the bays of Puget sound large numbers are taken by the Indians by 'trolling.' A small herring, four or five inches long, is tied to a hook; some six or eight feet from the bait a small round stone is fastened to the line; the stone acts as a 'sinker,' keeping the bait sunk some six or eight feet below the surface while being 'trolled.' The Indian, in a light canoe, paddles about slowly and noiselessly, trolling the line with a jerking motion, and not unfrequently taking, in the course of a couple of hours, several handsome fish, weighing from ten to thirty pounds each. The time chosen for this work is generally the two hours succeeding daybreak and an hour or two towards evening."

"Mr. J. Parker Whitney, an enthusiastic angler, whose camp on one of the Rangeley lakes is a familiar object to all frequenters of those waters, has also been very successful in trolling in salt water for sea salmon, and is the first white man who has made a record, one of his catches being seventeen salmon taken in one day at Monterey, Cal., whose aggregate weight was 274 pounds. They were taken with an eight-ounce rod, and his method of fishing is similar to that followed by the 'trollers' on the Maine and other large New England lakes for 'landlocks.'"

* Vol. XII., Pacific Railroad Reports.

"Well, gentlemen, let us not speculate any more about salmon and their vagaries," exclaimed the Judge, rising to his feet; "we cannot understand all their ins and outs, and I propose that we drop the discussion and take the rod; the afternoon is waning and we have but two or three hours' light."

We agreed to his proposition and were soon clambering down the ledge at the outlet, with rods in hand, followed by the guides. We gave the Judge the lower, or second pool, and the doctor and I took the upper, each of us taking a side of the river.

The Doctor was a graceful angler, and he handled his rod with all the skill that is acquired through many years' experience in its use. He was a somewhat small, wiry man, but the length of line that he could put out was astonishing. Moving slowly along the shore he covered every inch of the water thoroughly.

I kept abreast of him and fished carefully, but my attention was as often given to the fly that the Doctor was casting, as to my own.

"Sure, the Doctor is a great hand with the rod," said Hiram, who was attending me and carrying my gaff and landing net; "you'd have to hunt long to find his aquel."

"Yes," I replied, "he handles his rod beautifully, but the old Judge is no amateur."

"Right you are, sir," said the guide; "it's always a joy entirely to be on a river with the three of ye."

As he spoke a dry maple leaf, which had prematurely ripened and fallen, came floating down the breeze and fell into the river just below us, where, impelled by the slight current of air, it glided gently across the surface of the water; it had reached a point a few yards below my fly, when a swirl in the water was seen, and the leaf disappeared.

"Look at that, now," exclaimed the guide. "A saumon rose and took the leaf; he'll spit it out shortly. I've seen the beggers do it before, many 's the time."

As he spoke, the leaf came to the surface again, near the spot where it had disappeared, but it was sodden, and floated limply.

I reeled in my line at once, for I knew that the salmon would not rise again, immediately, and, lighting our pipes, we sat on a bowlder and waited.

"A saumon has poor taste that will rise at a dead leaf," said Hiram, sententiously, "but I've seen it done lots of times; I think 't is playing with it, they are."

"Yes, they rise to the drifting leaf just as they come up to the artificial fly," I replied, "probably only in play and not for food, for most of the salmon flies resemble nothing in nature."

"That 's true, and I 've often wondered what they rise for. I 've seen them rising at midges often, and at little moths and 'darning needles' (dragon flies), and I 'm sure they eat them like the trout do."

At that moment the Doctor, who was well down the pool, hooked a heavy fish which proved to be a large sea trout, and, although he gave the fish all the strain his tackle would bear, it was fully five minutes before the trout was landed, so gamily did it fight.

"Five and a half pounds," shouted William across the river, when the fish was killed and weighed.

"Good," answered Hiram; "sure it 's a beauty; it 's rarely we get a heavier one."

A Nice Lot of Sea Trout.

"Well," said I, "the Doctor is well down the pool and we will see if we can rise our salmon."

I changed my fly to a good-sized Popham, and drawing out a pretty long line, I cast the dry fly as nearly as I could upon the spot where the salmon had risen to the leaf.

"Sure, he ought to come to such an elegant fly as that," said the guide, as the feathered lure floated softly on the water, moved at intervals by the short lifting of the rod. There he comes," he exclaimed, and before I saw the fish, for your guide has marvellous powers of vision, there

was a movement below the fly, and I struck quickly, just as the lure was seized.

Merrily sang the reel as the fish darted down the stream; it was a glorious pool to play a salmon in, free from drift stuff, roots and logs, and, barring the large number of sharp rocks which covered the bottom, was all that could be asked for. Forty yards or more of the line were taken out before the fish paused, and then with a mighty leap, fully six feet above the surface, he showed his goodly proportions.

"Ah, ha"! exclaimed Hiram, "he's a twenty-pounder; 't is early for his size to be up here."

The fight which now ensued was a struggle that any angler might enjoy with supreme content. The fish was strong and remarkably active, so much so, in fact, that I was kept busily employed. Across the stream he darted, almost to the other shore, then down the pool again until my line was almost exhausted. I followed the fish quickly, running down the shore as fast as I could.

Fortunately, William was standing near the "ripps," which stretched across the foot of the pool, and rushing out into the stream, he splashed the water, and made such a noise that the salmon was turned back, otherwise he would have got into the rapids, and my line would have been insufficient to save him, for I could not have followed him rapidly enough in the quick water below.

Back into the middle of the pool he returned, and after two or three leaps in as many directions, he settled to the bottom, and remained quiet.

Gladly I accepted the respite, for the afternoon was warm, and the chase up and down the shore had caused the perspiration to start freely. After my line was packed on the reel again, I increased the strain on the fish, but for a few minutes he would not stir.

"He's trying to rub out the hook against a rock," said Hiram at length, pointing to the line, which was now vibrating somewhat in the water. "I 'll stone him out of that," he exclaimed, and picking up a rock, he threw it into the water above the fish.

The salmon, alarmed at the heavy splash made by the falling rock, left his lurking place, and again sprang into the air. He was a handsome fish, his silvery coat glistening in the rays of the setting sun, and his red eyes gleaming like huge rubies.

He now adopted a series of tactics which required all my best efforts to overcome; now he was at the bottom, endeavoring to wind my line among the sharp rocks; in a moment he was up again and darting to the other side of the pool, where he busied himself in some corkscrew movements in endeavoring to twist the hook out of his mouth.

"Ah, ha"! exclaimed the guide; "he's been there before; he 's full of tricks, and is as spry as a ten-pounder."

Photo. by L. R. Howe.

WITH A STROKE OF THE GAFF.

Down the pool we raced again, but my blood was up to such a degree that I gave the fish "the butt" without stint. The salmon again sank to the bottom, but his strength seemed failing, and in his next run I succeeded in turning him on his side, when, stepping back on the shore and holding the rod well up, I drew him nearer and nearer, and at last, with a stroke with the gaff, Hiram lifted him from the water.

"A pretty fish, altogether," exclaimed the guide, "and a gamy fighter."

"Yes, he 's a good one," said the Judge, who had now joined us; "a male, and one not long in the river."

"How heavy"? shouted the Doctor from across the pool, as we weighed the fish.

"Twenty-one pounds and a half," I replied.

"Good enough," was the answer; "it 's time for supper; what say you, shall we give it up for to-night"?

"All right," responded the Judge; and it was not long before we reached our tent.

"Yesterday, gentlemen, I poured a libation in honor of my first fish of the season, and now I propose to do the same for this one."

We gladly joined with him, and the modicum of Bourbon was taken

with a true sportsman's relish. A fire was soon started by the guides, and it did not take long to prepare and dispose of a generous repast. I hope the reader will not be too critical of my frequent mention of meals and the robust appetites with which they were discussed. There is nothing like such a life as the sportsman's to make a man absolutely *hungry*. Eating is, therefore, one of the chief functions in the woods, and I have known men who at home were abstemious to a degree, having appetites in a rough outing that would astonish their city friends, and it takes a good many pounds of fish and other comestibles to supply the daily wants of even a small party.

"That's what we came up here for," as my good friends, George Clarke and Henry A. Purdie, used to exclaim when we arose from dinner, having eaten a landlocked salmon, weighing two pounds, at our camp on Grand Lake stream, and they were right; one goes into the woods for health and strength and good digestion quite as much as for sport, and they usually are accompanied by good appetites.

After supper we smudged out our tent and affixed to the flap a strip of mosquito netting which the Judge had brought with him, and with pipes alight we stretched ourselves on our beds of boughs, which had been replenished during the day, and indulged in the ineffable pleasure which is always experienced in the after-supper smoke.

"We are to remain here a few days longer," said the Doctor, after we had got quietly settled; "a few salmon will, no doubt, work up, and I propose that we smoke some of the best ones to take out with us."

"That's a good idea," said the Judge; "the men had better make a 'smoker' to-morrow and start in with Samuels' fish."

"All right," I responded, "we've all the trout we can dispose of for a day or two, and the Doctor's big sea trout had better go in, too."

A "smoker" in the woods is constructed easily, if barrels are obtainable, by knocking out the heads of two, standing one on the other, building a small fire in the inside at the bottom, and keeping a current of smoke as dense as possible passing up through them and completely enveloping the fish, which are hung in them from the top.

If barrels are not to be had, a good substitute is made by cutting some green logs into three-foot lengths, notching them near the ends so that when laid on each other, in a square frame, they will bind together like the logs which form the walls of a log cabin, and by chinking the interstices with damp moss, an air-tight chimney, six or eight feet in height, is made. At the bottom of this a fire is built and maintained, over which damp turf or moss is occasionally laid so as to produce an intense smoke, the point being to have as little heat as possible, but the greatest amount of smoke. The fish, which have been split and salted, are hung down in this

FOND OF VENISON.

from sticks laid across the top, and in a very few days they are preserved so that they can be safely transported. Salmon and sea trout, when treated in this manner, are very palatable when one returns home, and this seems to be the most desirable method of saving them when ice is not to be procured.

"We found recent signs of a bear this afternoon, down on the shore of the river," said the Judge; "he had raked open an old stump for ants, and had evidently just left, probably having been frightened by our approach."

"I 've been in the woods a good many years," said the Doctor, "but have never yet found a bear that would wait my coming."

"No," I added, "the bear is too keen, both of vision and hearing, to permit man to approach him, but sometimes he gives the sportsman an opportunity to get in his work. An acquaintance of mine, on one occasion, was sitting on a log by the side of an old logging road in Maine, waiting for a chance shot at a deer. He had been there a short time, of course keeping very quiet, when he heard sticks cracking in the adjoining undergrowth, and the sound of a large animal drawing nearer and nearer was plainly apparent; cocking his rifle, he waited for a shot, which he soon got, and one that he did not expect, for greatly to his surprise a huge old bear came out of the thicket and mounted the trunk of an old windfall, not fifty

yards away. He said the way he pumped lead into that bear from his Winchester was a caution. He brought it down, and it was a monster, weighing over four hundred pounds."

The black bear is omnivorous in its habits, everything eatable entering into its diet. It loves fish and is expert in catching chubs and suckers, in brooks and other shallow waters, and even trout are captured by the wandering fisher. It is not, as a rule, an aggressive animal to man, and usually retires unless a female is approached, when she savagely defends her cubs. The bear is very fond of corn while it is in the milk, and does great damage when visiting the cornfields, by breaking down and destroying much more than it eats.

Young moose, caribou and deer are often caught by it, and many a farmer's flock of sheep has been decimated by the black freebooter. It also often destroys young cattle, and its *bonne bouche* is a nice fat pig.

The common method of capturing it is with a strong steel trap which, instead of being firmly fixed at one spot, is fastened to a log which is not so heavy but the bear can drag it; this is called a "hobble"; it effectually performs its work, that is, it prevents the bear from running away, but allows it some liberty of movement. If the trap were firmly fastened, the bear would quickly tear its foot from it; but, being loose, it is dragged along by the animal, leaving a distinct trail by which the hunter can follow the captive and kill it.

The bear is very tenacious of life; its brain is very effectually protected by the thick skull, and it will carry off a number of bullets unless it is shot through the heart. The bear is a great traveller, constantly shifting from place to place in search of food. In its travels it usually confines itself to certain circuits, generally following the same paths, which are called *runways*. Its habits are chiefly nocturnal, although it often moves about in the daytime. Probably the habits of none of our other *Carnivora* have been more extensively treated of by writers, and the stories that have been told of the slyness, destructiveness and ferocity of the bear would fill volumes.*

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* Mr. John McV. Munro sends me the following interesting account of the black bear.— E. A. S.

"The bears of Nova Scotia differ in size and general appearance so much that we designate them by various names, such as the cow bear, the hog bear, and the smaller-sized black bear. The cow bear is much the longest legged of the species and does not feed as much on grass and leaves as the others, but kills and eats cattle, moose and sheep; it is very destructive, but is always poor in flesh. The hog bear is very fond of nuts, grass, leaves, berries, and the tender shoots of ash trees. In early summer they will settle in a locality near an ash swale and remain in that neighborhood for weeks; they climb up into the trees and break off the limbs and then descend and eat them. About the last of June and from

"It has always seemed to me," said the Judge, "that the raccoon and the bear are in some way related, they have so many habits in common."

"You are right, Judge," I replied, "they are very nearly related, in fact, both belong to the same family, the *Ursidæ*, which is characterized by the plantigrade walk and usually naked soles. There are two well marked sub-families, one, the true bears, the other, the smaller, long-tailed species. The *Ursinæ*, or bears proper, are of large size, clumsy form, and very short tail, and the *Sub-Ursinæ* are the small bears with long tails."

"The raccoon, then, is simply a small-sized, long-tailed bear," said the Judge.

"That 's right," I replied; "and they have many of the habits of their larger relatives."

"The raccoon is one of the most generally distributed of all our *Carnivora*. It is a restless, mischievous animal, nocturnal in its habits. Its food is as miscellaneous as that of the bear, consisting of animals, birds, fishes, reptiles, shell-fish, insects, fruit, vegetables, and grain, particularly Indian corn, when in the milk stage; in fact, its incursions into the cornfields have rendered it an object of dislike to the farmer, who loses no opportunity of killing it. It has a propensity of destroying much more than it can eat: to which its visits to the cornfields, where it breaks down the stalks in every direction, — to the poultry yard, where it destroys every fowl it can reach, eating the head and leaving the mutilated body, — and

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that into July, in their mating season, they sometimes get into a pack of four or five, and then fierce fighting often occurs between the males.

"The bear is not often seen in the woods, for with his keen sight and hearing he quickly discovers the approach of an enemy and is soon out of danger.

"The bear sheds its fur at about July, and then its skin is valueless and it is not fairly good until November, but is in best condition from March to June. They usually go to den, that is, the female does, in November, where she remains until April, or later.

"Some of the older males do not go to den at all. I have seen where they have broken brush and made a bed under a spruce tree and laid all winter, but I have never known a female to do this, as she generally remains in her den until spring.

"The bear's position in the den is always such that it can see out of the entrance. Sometimes there are three or four in a den, but if there is a gravid female among them, before she gives birth to her cubs she always drives the others out, no matter how much snow there is on the ground. A peculiar trait of the bear is that it "back tracks" to its den, thus endeavoring to elude pursuers.

"The bears, although sleeping in their dens all winter, keep fat until they come out in the spring, but they then very quickly become lean. They then eat very little except a few ants which they get at by tearing open old logs and stumps; they later eat the buds as they swell. The female has her young, one to three in number, in March, although they are sometimes born in February."

Photo. from life by W. L. Underwood.

LOOKING FOR TROUBLE.

to the orchards, where it selects the finest and most luscious fruit, but only taking a bite or two of each before turning to another, give tangible evidence. It is very fond of eggs, and is not particular to have them fresh laid; being an excellent climber, no bird's nest is secure from it, and the number of eggs and young which it destroys is great. It is a very cunning animal, but is easily trapped, entering readily a trap baited with a fish or ear of sweet corn; the most common trap with which it is taken is a heavy log set with a figure-of-4 trigger, which, when sprung, drops the log on the raccoon, who is crushed to death; if caught when young it is easily tamed, but makes a mischievous pet. It nests in a hollow tree, and has from three to seven young at a birth in May, in the latitude of New England. It prefers the neighborhood of a thick swamp, with large trees scattered through it, and with a stream of water near by. It hibernates through the winter."

"I have participated in one or two raccoon hunts," said the Doctor, "and it is not half bad sport. The coon season commences about the first of September, and lasts until the coons get fat, sometimes until snow flies, but generally not later than the last of October. In some seasons, if there is a plenty of nuts and the raccoons get fat, they retire to winter quarters by the close of October.

"Nature protects the coon as she does the young deer; in the breeding season, in April or May and up to the middle of June, the animals give out very little scent. They are ranging the woods, meadows, brooks and fields as much during that period as during the first two months of autumn, but the best-trained dogs never track them, and if they are found by dog or man it is by accident.

"About the middle of August they begin to give scent, but not powerfully enough to make the dog sure upon their tracks if they strike water. As late as the twentieth of August I have known dogs to follow one a quarter of a mile splendidly until they reached a brook he had crossed. By circling they found the track, where the water had dried from his feet, and the scent lay strong enough for them to follow; and have known this game to last for hours.

"When coons go to their winter quarters, in hollow trees or ledges, fat, they are sure to be plenty on the following year; but if they go there in poor condition it is several years before they are plenty again. When the axe goes into the woods the coon begins to leave. I am inclined to the opinion that the raccoon has more cunning than the fox, and has more fight in him than any other wild animal of his size. The dogs are few in number that can kill an old one without assistance. His teeth are long and sharp, and he uses them with great power. He can also scratch with his long, sharp claws like a cat. I have seen one, when shaken from a tree, roll himself up like a ball and drop from a considerable height, apparently without injury. I think some of the hardest tramping I have ever done has been in a coon hunt at night."

"The raccoon is a destructive beast among partridges," said the Judge; "he will eat every egg that he can find and the old bird, too, if she permits him to catch her."

"You are right, Judge," said I, "and the wonder to me is that with all its enemies the partridge is not exterminated."

"Yes," responded the Judge, "and it's a pity that it is so much molested, for I regard it as the most valuable of our eastern game birds."

The Judge was right, and I have no doubt that if twenty sportsmen were asked the question, "which, in your opinion, is our most valuable game bird"? the reply from nineteen of them would be "the partridge."

The ruffed grouse, *Bonasa umbellus*, is the most generally distributed of all our game birds. It is known in Pennsylvania, and some of the Western and Southern States as the "pheasant"; in New England and the Provinces it is called the "partridge," "gray partridge," "birch partridge," and "ruffed grouse," and even by other names, butno matter what its cognomen may be, it is regarded as *the* game bird *par excellence*, and is hunted with a degree of enthusiasm such as is not felt in the pursuit of any other bird.

In many sections it is, in consequence of the great increase in the numbers of sportsmen and the use of the breech-loading gun, becoming yearly more and more scarce, while in other localities it is apparently as plentiful as ever. I have found it in the greatest numbers in Nova Scotia, in which province it is in many sections very abundant. In Cape Breton it is astonishingly plentiful, one storekeeper at N. E. Margaree shipping to market as many as from five hundred to a thousand pairs in a season. In New Brunswick, Quebec, and in the New England States, it is also a common, often abundant species.

The ruffed grouse mate in April, sometimes earlier in the spring, and the eggs, from eight to twelve in number, are laid usually in May. In mating, the male bird makes his presence known to the female by "drumming"; this habit is peculiar to this species, and is familiar to all persons who have passed much of their time in the woods.

The bird resorts to a fallen trunk of a tree, or a log, and, while strutting like the male turkey, beats his wings against his sides and the log with considerable force. This produces a hollow, drumming noise that may be heard to a considerable distance; it commences very slowly, and, after a few strokes, gradually increases in velocity, and terminates with a rolling beat, very similar to the roll of a drum.

I know not by what law of acoustics, but this drumming is peculiar in sounding equally as loud at a considerable distance off, as within a few rods. I have searched for the bird when I have heard the drumming, and, while supposing him to be far away, have flushed him within fifty feet, and *vice versa*. This habit of "drumming," however, is not confined to the mating season, for I have heard the tattoo of the grouse in almost every month of the year. On one occasion, as I was camping in the wilds of Nova Scotia in December, when the weather was freezing cold, and the ground was lightly covered with snow, I heard, early one morning, the rolling beat of a grouse within ten rods of my tent, and so unsuspicious was he that he kept on his drumming log for several hours, although my two guides and I were noisily moving about the camp fire, chopping wood and preparing breakfast. In fact, he even drew near and wandered about the vicinity of the camp during the day, seemingly glad to have our companionship. Of course he was not shot, although he probably soon fell a victim to one of the Great-horned owls which abounded in those forests.

The ruffed grouse, after it has been hunted, is one of the wildest and most difficult of approach of any of our game birds, but if it is unmolested it is unsuspicious to a remarkable degree, and will often permit a person to approach it as unconcernedly as would a domestic fowl, and I have time and again, when hunting it, been obliged to almost kick it out of the bushes before it would take flight. It is often seen in small flocks about the old farms and pastures, and in Nova Scotia I have actually found them gleaning in buckwheat and rye fields, running about like so many chickens.

RUFFED GROUSE OR PARTRIDGE.

But in most sections, particularly where sportsmen are numerous, it is quite a different bird, and on the least approach of danger it is off with a thundering whirr to a more secure neighborhood.

The nest of the grouse, loosely constructed of twigs and dead leaves, is usually placed beneath a bunch of brush or evergreen thicket, or under the lee of a log or rock; the eggs, from eight to twelve in number, are usually of a yellowish-white, and are marked more or less with brown and drab spots.

The female remains motionless on the nest, even if it is closely approached, and I once, in Ohio, found one sitting on her eggs so persistently that she actually permitted me to lift her from the nest. During the season of incubation the males congregate together, or at any rate remain apart from the hens, until the young birds are nearly full-grown, when they join them and remain with them, if undisturbed, until the ensuing spring.

The chicks follow the mother about almost as soon as they are hatched; they are pretty, fluffy little things, full of activity in the pursuit of insects, on which they feed. The mother guards them with the most tender solicitude, and if a person approaches she gives a warning cry, at which they instantly hide among the dead leaves and shrubbery, while she, counterfeiting lameness, flutters before him, on the ground, until she leads the intruder away from her brood, when she flies off and returns to her family by a circuitous route.

I once came suddenly upon a brood of these young birds, when the mother, taken by surprise, uttering a harsh cry, flew at my foot, and commenced pecking it fiercely; the young scrambled off, uttering faint "*peets*," when the old bird, perhaps astonished at this departure from her usual modesty, suddenly retreated, and concealed herself.

The young chicks are often destroyed by wood ticks, which fasten to the heads of the birds, and hang there, sucking the life blood of their victim until death ensues. Black flies and mosquitoes, I have no doubt, also cause the death of many, for such has proved the case with another species, the *Tetrao lagopus*, which, in Norway, according to Laestadius, is often destroyed by these pests.

Skunks, raccoons, and other vermin, also eat the eggs, and the wonder is, that with all its enemies, for the grouse has not a friend in the world, the race it not extinct.

Although foxes, lynxes, hawks and owls kill great numbers, the greatest destruction to the adult birds is wrought by the snare. The writer has examined many hundreds of them in various markets, and probably not one in ten bore shot marks, but, almost invariably, the sign of the fatal moose was visible on the neck. The great number that are annually thus destroyed may be imagined when it is stated that in Boston,

alone, the wholesale dealers in game handle, every season, upwards of twenty-five thousand pairs of ruffed grouse. A great many are also shot in trees, by boys who hunt the birds with a small, barking, noisy dog; the grouse, on the near approach of the cur, fly into a tree, and if the dog continues his barking they will sit gazing on him, almost stolidly, until the last bird is shot, the hunter being careful to kill the lower ones first.

The food of the ruffed grouse consists of various seeds, berries, insects and the buds of trees. In hard-wood forests it feasts upon acorns and beech nuts. I have often, in birds shot among the scrub-oaks of Cape Cod, found the crops distended with acorns almost to bursting, and it has been a wonder to me that such food could be digested. In the winter the regimen is confined to the buds of trees and such dried berries as may be obtained, and if nothing else offers, the leaves of the common laurel, *Kalmia latifolia*, are eaten. These impart a very bitter, disagreeable flavor to the flesh of the bird, and even render it unsafe for food.

The habit of the grouse of diving into the deep snow in winter is well known; this is done as a protection against the severe cold which often prevails in our northern forests, the fleecy covering affording a warm and effectual place of refuge.

In sections of the country that are pretty closely hunted the grouse is so wild that a dog is generally of little value, for the reason that no matter how well trained he may be, the noise he makes in travelling over the fallen leaves startles the bird long before the sportsman draws near enough to obtain a shot; but in more retired localities a good dog is almost invaluable, and the birds will lie in their cover until the last one is flushed and shot.

While the ruffed grouse is generally believed to be tameless, and consequently will not breed in captivity, there are several instances on record that disprove this theory. My friend, H. A. Mansfield of Waltham, Mass., had a pair of these birds which he kept in one of his poultry houses many months. They were both full grown when they were captured, and were, therefore, probably as untamable as any would be, much more so, in fact, than would chick grouse raised in captivity.

By an accident the cock bird escaped, but the female became even tamer than a domestic fowl. She would permit Mr. Mansfield to handle her and to stroke her back; she would feed from his hand, in fact, acted in every way as if she had been a tenant of his house all her life. When spring arrived she scratched a nest in the corner of her pen and laid eleven or twelve eggs. Of course, in the absence of a male bird, they were sterile, but if she had not lost her mate she would, undoubtedly, have hatched and reared a brood of young. I often used to visit his hennery and watch the domesticated grouse.

Now if a single pair can be tamed so that they will breed in confine-

ment, other pairs can be, and I have no doubt that our fast-diminishing stock of ruffed grouse could be increased indefinitely, provided some one would take the initiative in rearing them. The English, Chinese and Mongolian pheasants are now reared in captivity, and there is no reason why the ruffed grouse may not be.

"Almost ten o'clock, gentlemen"! exclaimed the Judge, as he consulted his watch by the light of a burning match. "It's time 'honest men were abed and rogues moving.'"

Our beds were quickly arranged, and, as my companions prepared for the night, I stepped outside the tent to ascertain if the fire was burned down so that there was no danger of its spreading into the woods. This is my invariable custom, for I hold that a conflagration in the forest that is caused by carelessly-attended camp fires is a needless and unpardonable calamity. I found that the fire was dead, a few red coals being all there was to indicate its presence.

The full, round moon was shining like a great silver sphere above the eastern mountains, its bright rays being mirrored in glinting streams across the bosom of the lake. In a few minutes I rejoined my friends, and soon we were lulled to sleep by the musical tones of the falls.

CHAPTER III.

BUILDING A "SMOKER."—THE OTTER AND HIS HABITS.—A RAPACIOUS FISH DESTROYER.—THE MINK AND HIS DEPREDATIONS.—AN ENEMY TO TROUT.—A NICE CATCH STOLEN.—THE SHELDRAKE A GREAT PEST ON A SALMON RIVER.—TROUT PONDS DEPOPULATED BY EELS.—ANOTHER TURN AT THE OUTLET OF "BIG BROOK."—A HEAVY SEA AND A DUCKING.—WEATHERWISE GUIDES.—VICTIM OF A FOX.—HABITS AND CHARACTERISTICS OF THE FOX.—THE DOMESTIC CAT, "RUN WILD," DESTRUCTIVE TO GAME BIRDS.—THE VIRGINIA PARTRIDGE OR QUAIL: ITS PECULIARITIES AND VALUE AS A GAME BIRD. ENEMIES OF THE QUAIL.—THE AMERICAN WOODCOCK AND ITS HISTORY.

BEFORE sunrise on the following morning we were astir, for the guides were anxious to have the "smoker" erected and in full operation as early as possible. Breakfast was ready by the time we had finished our morning bath, and as soon as it had been eaten and things tidied up, Hiram and William disappeared in the neighboring woods, from which the sound of their busy axes was soon heard. A considerable number of sticks, six inches in diameter, is required to erect a smoker six or eight feet in height, and no small amount of labor and ingenuity is needed to build it.

The woodsman is an adept in the use of the axe, and our guides were highly accomplished in this respect. The axe in the woods is an universal tool, performing, as it does, the work of the chisel, plane, drawing-knife, and I know not what else.

While the brothers were busy at their work we took our rods, and for two or three hours cast our flies in the two pools below the outlet. Our efforts were rewarded by a few medium-sized sea trout and a grilse, but no salmon made their presence known in the pools.

At the foot of the second pool we saw an otter which emerged from the water with a large trout in his mouth; he paused for a moment when he reached the shore, gazing at us with curiosity, his beady-black eyes shining brightly, and then disappeared in the thicket.

That the otter is a destroyer of trout and salmon is pretty generally known, but probably few are aware of the great number of fish that is

required to keep in food a family of these animals. I have known of a large pond in a preserve belonging to a fishing club, being completely depopulated of trout before the presence of an otter in its neighborhood was discovered. Although it is a valuable fur-bearing species, I, as an angler, class it as a noxious animal, believing, as I do, that it kills during its life, fish of vastly greater value than its pelt.

The Canada or American otter, *Lutra Canadensis* (Sabine), is the largest of the *Mustelidæ*, or weasel family, in this country. It takes up its residence in or near the bank of a river or pond, and, if possible, provides a passage leading to it beneath the water. It is an expert swimmer, catching with ease the fishes, of which its food chiefly consists. It is a very active, strong animal, although rather clumsy on the land. When attacked by a dog it often proves more than a match for him, its sharp, strong teeth inflicting an ugly bite, and its tough skin and thick fur covering affording it protection from the attacks of its assailant. It is usually a cunning animal, trapping it being generally unsuccessful, unless the trap is set beneath the water or at the foot of its slide. A strange peculiarity of this animal is its habit of climbing to the top of a steep bank or snow drift, and sliding on its belly head foremost to the bottom; this operation is repeated many times and seems to afford it a very delightful recreation. If caught when young it is easily tamed, feeding greedily on fishes, fresh-water clams, and frogs. It breeds once a year, in early spring, and has from two to four at a birth.

The mink is another terribly voracious fish killer; it is so expert that no fish can escape from its pursuit. Some idea of its dexterity in this respect may be had when I state that I once, while crossing Grand lake, in Maine, in a canoe, shot a mink nearly, if not quite, a half mile from the shore, which had a small salmon in its mouth it had caught in the deep water of the lake.

The mink destroys more fish than it can possibly eat and seems to kill for the sake of killing. In one of my outings, in Nova Scotia, as I sat on the shore of a stream awaiting the return of my guide, who had left me for an hour or two, on an errand, I saw a mink come from the water near by, with a trout at least a foot in length.

It was a heavy load for so small an animal, but it carried and dragged it up the shore and quickly passed into the thick undergrowth. Not five minutes elapsed before it returned to the shore, went into the water, and disappeared.

It was not long before it reappeared with another trout as large as the other, and I counted five good-sized fish that the mink brought to shore in less than an hour. Probably the animal had a family near by, but its members must have had good appetites. I once lost a handsome catch of trout by one of these marauders, and the incident is another example, showing

THE OTTER IS A DESTROYER OF TROUT AND SALMON.

how many fish can be disposed of by a mink. It happened a good many years ago, on the Rangeley stream, long before it was closed to anglers. I had waded about half its length and had taken over a dozen beautiful trout; old fishermen will well remember how bright and silvery the trout of that stream used to be.

My catch filled my creel, and as I desired to fish the pool below, at the junction with, I think, the Kennebago stream, I left my trout in a cool, shady spot on the shore, covering them with ferns and intending to get them on my return up the river.

I was gone less than an hour, but found on searching for them that my trout had disappeared. As I stood for a moment, wondering who the thief could be, a rustling in the bushes attracted my attention, and in a moment I saw a mink dragging my last trout away. I threw a stone at the beast and he had the impudence to drop the fish and hiss at me. I quickly seized another rock to hurl at him, but the mink had disappeared.

Not alone among fish is the mink destructive, for its great strength and activity enable it to conquer animals much its superior in size, often killing the rabbit and hare, and I have known it to drive off a cur dog when attacked by him.

The mink has an enemy in every sportsman because of its habit of stealing on a sleeping covey of quails, or a brood of partridges, and slaughtering every one possible. It often enters the home of a rabbit, and generally makes a clean sweep of old and young. In seizing its prey, it throws its lithe body over and around it, usually biting it at the junction of the head and spine, or through the skull, into the brain. An instance that once fell under my notice will go to show the destructive propensities of this animal.

An acquaintance of mine, a farmer, had a choice flock of nineteen fowls: the hen house was built on the side of a hill, the back being dug into the hill, and walled up; this was a mistake — no hen house should have any stone wall in its construction, it but affords comfortable homes for rats and other vermin, and has no recommendation, not even that of economy. One evening a hen was heard squalling, and on going to the hennery to discover the cause of her outcries, every hen in the flock was found dead, each with a bloody spot at the nape of the neck, or a little wound just over the eye. Search was made for the assassin, but the artful beast was safe behind the stone wall. The hens were removed; a steel trap, baited with one of their heads set, and the scamp was found the next morning safely caught in the jaws of the trap.

The nature of the mink is eminently blood-thirsty; it will continue killing as long as it has anything to kill. I have often seen its tracks in the snow, following those of a rabbit, and have even followed them until I found the spot where the unfortunate animal was slaughtered.

Although the mink is very destructive among trout, I doubt if he is more injurious on a stream than the common sheldrake. This bird breeds everywhere in Northern New England, and in the wooded sections of the Provinces, and the old birds with their family of ten or twelve young, destroy incredible numbers of fry in a summer. A half-grown bird was once found, on examination, to contain seventeen salmon fry in its stomach, and it has been estimated that a family of them will kill upwards of a thousand fry, or other small fish, in a day. My advice to proprietors of salmon streams and trout preserves, is to discourage as much as possible the presence of the sheldrake in their waters. Many owners offer their wardens or river keepers a bounty for their destruction, and even the kingfisher is not spared by some.

Photo. by W. L. Underwood.

FOLLOWING THE WINDINGS OF A FOREST STREAM.

Eels are also very destructive to trout; they are very expert fish catchers, much more so than most persons are aware; and I recently heard of an owner of a trout pond being obliged to set a large number of eel traps in his waters, in order to save his few remaining trout from extermination, so rapacious had the eels become.

On our return to camp we found that the smoker was completed and already in use, so expeditiously had the men done their work. The salmon and large trout had been split and salted, and were now hanging in the dense smoke, their bodies being extended to their full width by several "stretchers," made of sticks pointed at both ends being thrust into the fish at the edges of their bellies.

After partaking an early dinner, we embarked in the canoes for a visit to the mouth of "Big brook" for the purpose of procuring a fresh supply of trout, our stock having become nearly exhausted. Six men who are actively engaged in the woods have vigorous appetites, and no small number of trout is needed to meet their wants.

A light breeze was blowing as we paddled up the lake, which made a good ripple on the surface of the water.

"The wind is fair for a ripple at the mouth of the brook," said the Doctor, as we moved merrily along.

"Yes," replied François; "good ripple this afternoon, big trout come up to fly; too much wind bad; just enough, all right, good."

Our canoes soon reached the outlet of the brook and the killicks were dropped. Preparing our tackle we began casting. We used two flies on our leaders, and in a short time we found we had all our guides could attend to, the average weight of the fish being over a pound. A few large ones were taken, the Doctor being fortunate to hook and land a pair that weighed over six pounds.

"We 'll try smoking them," said the Doctor, when the fish were killed; "but I have no great faith in their proving very desirable."

"No," I answered, "the fresh-water trout, as a rule, have not enough fat in their tissues to smoke well. I have tried to cure them in that manner two or three times, but they did not prove to be epicurean delights; they were dry and hard, and greatly inferior to a smoked salmon."

"Gentlemen," exclaimed the Judge, as he landed his tenth pair, "this is a slaughter. I am done."

"Yes," answered the Doctor, reeling up his line, "we have enough in all conscience; 'wicked waste makes woful want.'"

My companions belonged to that school of sportsmen who never kill more than can well be used, and, as for myself, in all my outings I think I never wasted a pound of meat or fish. To stop when enough is secured is a good rule to adopt and adhere to. Some will continue fishing long after they have taken a proper number, and return the fish to the water, but this, with trout, is a bad practice. Unless the hands are thoroughly wet that remove the hooks from the mouth of the fish, a confervoid growth is likely to form on the fish, which sickens and weakens them, and sometimes kills them.

With black bass there is not so much danger of this, and it is often the case that ardent anglers at the lakes at Belgrade Mills, Maine, where bass are more abundant than anywhere else in New England, catch and put back into the water from one hundred to two hundred fish in a day.

The killicks were soon lifted and the return trip down the lake was begun. The breeze had freshened considerably while we were taking our fish, but busy as we had been we did not notice it; as we passed around

the point out into the lake, however, we found that "white caps" were abundant, and in an incredibly short time a pretty good sea was on.

Those who have had experience on fresh-water lakes know how much more quickly a high sea will come up, even in a moderate blow, than it will on salt water, but those who have not passed through it can form no conception of the height and strength of the waves that arise as if by magic.

Fortunately, our canoes were good, seaworthy, roomy Mic-Macs, and we were in no danger of being swamped, but I thought my wrists and arms would give out before we reached the camp, so severe was the effort required to force the canoe through the head-wind and sea down the lake. My position in the bow exposed me to "the spatter," and many was the shower bath I involuntarily took before we reached the shore. Nevertheless, I love the canoe and paddle, and am perfectly willing to take all the drenchings that come to me, if I can have the outings in which they occur.

A change of garments was quickly effected, for dry clothing is absolutely essential to one who has passed the meridian of life, after such an exposure as I had experienced.

Supper was soon prepared, and by the time it was disposed of the sun was sinking behind a heavy and constantly-increasing mass of gorgeous clouds in the west.

"It looks a little off there," said the Judge, pointing to the clouds, "as if we might get some rain to-night."

"No rain to-night, sir," replied Hiram, "though the clouds are piling up, there 's no rain in them ; it 'll be a fair night, no trouble" (no doubt).

The guide was an old woodsman, and weatherwise to a degree ; being in constant touch with Nature makes such a man an adept in reading her signs and tokens, and the accuracy with which he can foretell a coming storm is astonishing. Pete Sepsis, my old Indian guide on the Schoodic lakes in the sixties, was the most remarkable man in this respect I ever saw, and I used to think he could predict to an hour when the wind would rise, when the skies would be cloudy, and when it would rain.

Birds, as every observer knows, are good barometers, and by their peculiar movements fish always seem to know of the approach of a storm.

As usual, after supper the guides went into the woods near by for fuel, while my friends sat by the camp fire and "made a smoke" with their pipes. I also lighted mine, but instead of joining my friends I took the water pail and went to a large spring that was reached by an old carry road which led around the falls, for the purpose of obtaining a supply of the sparkling water that it contained. As I quietly approached the spring, for it is my custom always in the woods to move around with as little noise as possible, I heard the cracking of twigs near by, and as I paused a moment to ascertain the cause, a fox with a large ruffed grouse in his mouth came out of the thicket and stepped into the path.

Instinctively I jumped for the animal, giving a loud shout at the same time, hoping that he would drop the bird. For a moment he stood as if paralyzed with astonishment, and then, with the speed almost of electricity, he darted into the woods and disappeared.

"Yes, the fox is terribly destructive," said the Doctor, when I returned to camp and related my adventure.

"He is one of the worst enemies to game birds in the whole list," added the Judge; "I know of hardly any animal that is more voracious."

"Yes," I replied, "he does more to keep game birds reduced in numbers than almost any other animal,* and even young deer are killed by the marauder."

The common fox, *Vulpes fulvous* (Richardson), is well known in almost all sections of the country. I am sorry to say it is growing abundant in some of the public parks around Boston, and unless measures are taken for its destruction it will exterminate the game birds which are now protected from sportsmen in those preserves. It is now much hunted with packs of fox hounds, and the sport derived from it is very great. There is in New England a considerable number of kennels of these hounds, and the taste for the sport is increasing.

The general character and habits of the fox are so well known that a description of them is hardly needed here; his cunning is so great that it has passed into a proverb, trapping him being almost impossible. At the breeding season, and while the young are provided for by the old ones, the cunning in a great measure gives place to the desire to furnish an abundant supply of food for the young. In the summer of 1858, near the house in which I was residing in Dorchester, Mass., now a part of Boston, a pair of foxes had burrowed and had a litter of four young; the burrow was on the south side of a low hill, in a thicket of huckleberry bushes. There would have been some sagacity displayed in the choice of neighborhood, this locality being surrounded by a number of farms, each with a nice flock of poultry, were it not for the fact that the little patch of bushes and scrub-trees, where they had chosen their home, was scarcely an acre in extent, and of course was more or less familiar to every boy in the neighborhood. Presently, several hens were missing from one flock, and others missing from neighboring pens led to inquiries which resulted in the discovery of the fact that a fox had been seen running across the fields to this thicket. Search was made, and the home of Reynard found. The burrow extending beneath a ledge of rocks, no attempt was made to dig

* A correspondent of *Shooting and Fishing* discovered a fox's burrow; on partially digging it out he found in it four partridges, a large hen, and a woodchuck. Four days later he completed the work of unearthing the family of five foxes, when he found eight partridges, three rabbits, and another very large woodchuck.

Photo. by J. W. Bedell.

"WITH A LARGE RUFFED GROUSE IN HIS MOUTH."

the family out, it being determined to lie in wait and shoot them at the first opportunity. Accordingly, one day, I took my gun, and hiding behind an old stone wall, less than a gunshot from the mouth of the burrow, awaited events. Shortly I heard a rustling in the bushes, and looking, saw the mother fox coming up the hill with a nice large domestic duck in her mouth. I waited until she got near the burrow, when I fired one barrel loaded with swan shot; she did not drop, but ran limping across the fields to some woods, where she was subsequently found dead. I reloaded and waited patiently for her to return, but she did not. I was on the point of abandoning the hunt when suddenly a young fox ran out of the den, and he was quickly followed by three others; they were about half grown and were very playful, rolling on the ground and over each other like kittens or puppies.

I watched them a minute or two and then shot them, killing two with each barrel. They were much grayer than the old one, and the pelage lacked the hairs which in the old animal extend beyond the fur.

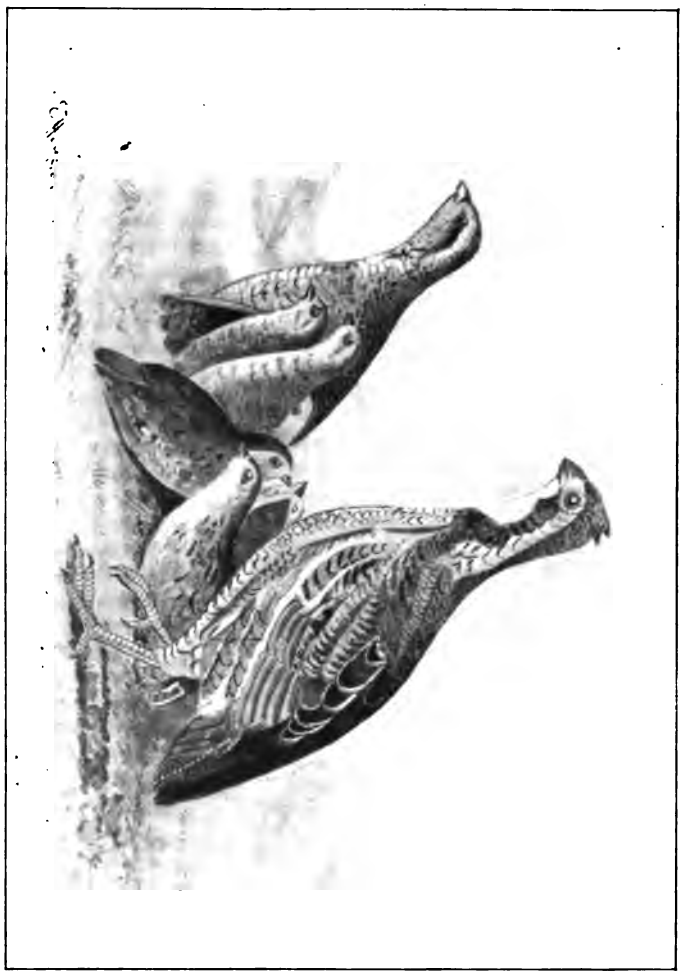
"Speaking of destructive animals," said the Doctor, "the domestic cat, that has run wild and makes its home in the woods, is one of the worst offenders."

"You are right, Doctor," I replied, "it is one of the greatest pests in settled localities, and I always feel it my duty to shoot every one I catch in the woods. In England it is classed among the vermin and is always destroyed by gamekeepers. Sometimes the house cats make trips to the woods, and I have known of their bringing in woodcock, young partridges and quails. Yes, they are very mischievous. I have repeatedly seen their tracks in the snow, miles from any house."

"Yes, the domestic cat catches a great many quails," added the Judge; "it is a great pity, for, in my opinion, it is one of our best game birds; they are not very numerous anywhere in New England, north of Massachusetts, but in that State and south of it, and in the West, they are in many sections very abundant. In some of the Southern States they are so numerous that a sportsman can bag all the way from one to two hundred in a day, if he desires. An acquaintance of mine, while on a visit to Meridian, Miss., last winter, found them so abundant that shooting them lost all its attractiveness. He says that the poultry dealers keep several hundred live quails on hand, confined in large coops or cages, and they fill orders at the low price of fifty cents a dozen, they killing the birds by wringing their necks when they are called for."

"The southern quail averages a trifle smaller than the northern one," said the Doctor.

"Yes," I replied, "but that condition holds good with many other species; for instance, the Florida deer is smaller than the animal killed in Maine, but it is of the same species. Yes, I also regard the



QUAIL, OR VIRGINIA PARTRIDGE.

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quail as one of our most valuable game birds, and it is about the only species that can be brought into New England for the purpose of replenishing our stock from other localities.

"I have always loved to follow the quail with a good dog, but somehow I always feel a sort of regretful pang when I pick up one that I have shot, and after stroking its beautiful feathers, consign it to my pocket. Perhaps it is because I always associate the bird with its cheery call of 'Bob White,' 'Old Bob White,' in the summer meadows, where perched on a stake or fence-rail he utters his whistle, which to his setting mate has all the melody of the greatest of songsters."

"You wax poetical," said the Judge.

"Yes," I replied, "but I am not the only one who becomes poetical on Bob White."

The Virginia quail, *Ortyx Virginianus*, is not a true quail, although it is called so in the north; neither is it a true partridge, as its southern name would seem to indicate.

The *Ortyginae*, of which it is a member, includes many species indigenous to America, of which the California quail and Gambel's partridge are exceedingly beautiful. They are not, to any great extent, migratory, and each is confined to its particular locality, while the true quail of the eastern hemisphere is celebrated for its annual migration across the Mediterranean sea. The *Ortyx Virginianus* is found almost everywhere in the United States, east of the great plains, beyond the Mississippi.

While our other game birds as a rule shun the society of man, the quail often seeks it, and is always most numerous in localities which are brought under cultivation. It has been domesticated in some degree, and I believe that if proper care were given it, the species might be as familiar about our farm-yards as common chickens.*

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* My old friend, D. Darwin Hughes, who has given considerable study to this bird, writes of the possibilities of its domestication as follows.—E. A. S.

"Eight pairs were confined in a cage, and at once became very tame, confiding and unsuspicious; but toward spring, probably from being confined in such numbers to so limited a space, several of them died. To save the lives of the remainder they were liberated, and it was supposed they would at once return to their wild state and be seen no more, but the next day they were found trying to get back into the cage, and food being thrown to them they came running up to eat, as tame in all respects as ordinary domestic fowls. They found a roosting-place in the woodshed, and remained about the premises for a month, always running out from some nook or shelter when food was thrown to them, and often while feeding coming within reach of the hand. As the breeding season approached they began to wander; their visits became less and less frequent, and then in gradually reduced numbers until they disappeared altogether. It is not remarkable, but on the contrary would be expected that at the season of

There is a curious fluctuation in the numbers of this species from year to year, which has scarcely been explained. In some years they are quite abundant, and the hopes of the sportsman and epicure rise in proportion, when they become less plentiful, and even in certain localities almost entirely disappear. Various causes have been referred to as producing this irregularity. Generally it is supposed that severe winters destroy them, the birds being confined beneath crusted snows until they perish; this is the probable cause of their disappearance, although it may be said that they are sometimes very scarce in seasons which succeed a mild, open winter. Some observers claim that in the Eastern States the quail is sometimes migratory and that its emigration from given localities to others accounts for its scarcity.

The quail furnishes the most delicious food of all the gallinaceous birds, and is, in many respects, the most interesting. The nest is artfully concealed beneath some overhanging tuft of grass or weeds, and the female sometimes deposits the extraordinary number of twenty-four eggs, but usually from twelve to eighteen. The young are reared with the utmost care and attended with the greatest solicitude. They remain together until spring, passing the night on the ground huddled closely together, and, by some it is said, in a compact circle, each bird with its head outward, so that on being alarmed, each one flies in a direct line, and the bevy is thus scattered and eludes the threatened danger. After being separated by an alarm they are re-assembled by a call uttered for that purpose, which for its sweet and tender expression is unsurpassed, and when once heard is never forgotten.

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incubation these birds should have sought some seclusion in which to rear their brood, and that while so retired they should return rapidly to the wild state. This is every day's experience with domestic poultry. They all indulge in the propensity to 'steal their nest,' as it is called, and at such times are shy and wary. This probably accounts for the quails, although it is not unlikely that their tameness may have led to their destruction at the hand of some thoughtless or vicious person. There is little doubt that if, during the breeding season, they had been confined to the range of a proper inclosure, adapted to their wants, and protected from intrusion and regularly fed, and brought in contact with a kind protection, they would have reared their young, and that in a few seasons their progeny been brought to a state of complete domestication. The experiment is well worth trying on a scale to combine every possible chance of success, as the benefits to flow from the accomplishment of such an object can scarcely be estimated. While success has attended the culture, and perhaps it is not going too far to say the domestication of the most desirable species of fish, we need not despair of making a valuable acquisition to the poultry yard in the person of this well known and universal favorite. The effort to do so would furnish to any person able to give the time and means, or to any society having for its object the protection of game or the advancement of agriculture, a delightful and interesting occupation, and a valuable field for observation and study."

"A Double on Bob White."

From *Shooting and Fishing.*

The quail has numerous enemies, and it is only by the exercise of the greatest vigilance that it is not exterminated. The skunk, that odious nocturnal marauder, often finds the eggs, and, of course, sucks them without any hesitation. The sharp-shinned hawk is another active foe; in fact, every prowling animal and bird is ever on the alert to capture it, and after it has run the gauntlet of all these, man, with his improved breech-loader and trained dog, takes up the cue, and the chances are good for its destruction ere it passes the second year of its existence.

"In my boyhood days," said the Judge, "a great many quails were trapped: a large coop or cage was made of laths, which was set in a stubble field with a figure-of-4 trigger. The birds were baited with Indian corn or oats, and frequently a whole covey was captured. The practice was then permitted, but in most of the States it is now forbidden by law."

"Yes, and rightly, too," exclaimed the Doctor, "the trapping of all birds is outrageous."

"I think my best sport with the gun," continued the Judge, "has been in autumn cock shooting; to my mind there is no bird in this country that can compare with a 'flight woodcock,' and on the table he is incomparable."

The Judge was not alone in his opinion, for in the magnificent list of game, both furred and feathered, that this country affords, a list which in variety and abundance is unexcelled in the markets of any other nation, the woodcock, in the opinion of most *bon vivants*, occupies almost the highest position. It is regarded by them as a delicacy of the choicest kind, and, although the supply is still fairly abundant, it always falls far below the demand.

It is not among epicures alone, however, that this bird is deservedly popular, for it is regarded by sportsmen as one of the most desirable of our game birds, and it is sought for by them with the most enthusiastic ardor from the beginning of the open season to the close of the autumn migration.

The woodcock is pretty generally distributed throughout eastern North America, being found in the greatest numbers in localities which have considerable growths of swamp and swale lands. It begins its northern migration quite early in the spring, and arrives in New England as soon as the ice and snow have disappeared; in fact, I have found it in warm places in swamps, where springs had melted the snow, as early as the last week in February, and have found the female sitting on her nest of four eggs when the ground around her was covered with its winter's mantle.

Generally, however, the birds are not mated and the eggs laid until sometime in March, even early in April, if the season is a late one.

The young birds leave the nest and follow the mother around in a short time after they are hatched. They are curious looking little chicks,

AMERICAN WOODCOCK.

being clothed with a grayish-yellow down, which is marked with brownish stripes, and as they move about their long bills almost seem too heavy for their little bodies. They thrive and grow apace, however, and are fledged and able to fly when a month old.

The woodcock is generally nocturnal in its habits, seeking the shelter of thick shrubbery during the day, and beginning to move about in search of food at early twilight. It subsists upon worms, larvæ and insects, which it obtains by probing with its long bill in the moist earth, and the number of these required for its daily sustenance is, according to Audubon, equal to the bird's own weight.

WOODCOCK FEEDING.

While its food is generally sought in the swamps and moist places in the woods, the woodcock does not limit its foraging to such localities, but in its nocturnal rambles it visits cornfields, swale lands and meadows. I have often found the "borings" made by its bill in potato and turnip fields, and in a period of drought I once saw the bird searching for worms in the mud about a sinkspout, within a few rods of a dwelling house.

In feeding, the woodcock thrusts its bill into the moist earth, draws out its prey, and raising its bill into the air, it extends upon it the whole length of the worm, and swallows it quickly and without any apparent action of the jaws.

In its home, in the thickest coverts, the woodcock is generally a somewhat difficult bird to shoot, particularly late in the season, when it is lusty and strong of wing. Its flight is often very rapid, and as it does not always take a direct course, but suddenly darts sideways through the foliage every few yards, it often requires a practised hand to bring it down.

But when it is found in more open places, such as scattered low clumps of alders, in meadows, in cornfields, and in small growths of scrubs and birches on hillsides, the hunter often obtains great sport, particularly if he has a well-trained dog. I have shot them not only in all these localities, but on one occasion had the good fortune to obtain a number in a large field of mangolds on Prince Edward island, from which I flushed them by "walking them up," just as one often flushes snipe on the meadows.

Like many other species the woodcock has numerous enemies. Small owls, particularly the screech owl (*Scops asio*), destroy no inconsiderable number. Weasels and other predatory animals also prey upon it, and I once killed a snake that I caught in the act of swallowing one of the young birds which it had captured. I have been informed, also, that the red squirrel or "chickaree" sometimes captures and eats the chicks.

The woodcock remains in our northern woods in the autumn sometimes as late as early December or until the weather becomes severely cold, when, in consequence of the failure of its food supply by reason of the freezing up of the spring holes and runs, it departs on its southern migration. This, like that in the spring, is performed in the nocturnal hours, and a considerable distance, sometimes hundreds of miles, is often covered at a single flight.

The fascinations of woodcock-hunting have been written of by some of the most talented authors of the century. Among them, Frank Forrester has given one of the best descriptions of the sport in his great work, and almost numberless writers in the sportsmen's periodicals have attested in glowing language to its delights.

"Bedtime"! exclaimed the Doctor, consulting his watch; "we are getting dissipated up here in the woods where we ought to keep the best hours. Our game birds are a never-failing source of interest to me, but we shall have a good many nights to discuss them, and I, for one, am ready for bed."

"So am I," added the Judge.

"Well, I think I will join you," said I; "the fire is out and the mosquitoes are ravenous."

We soon sought the confines of our tent, and before many minutes had elapsed we were sleeping like guides and hunters.

CHAPTER IV.

A COLD MORNING. — FAMILIAR DENIZENS OF THE FOREST. — INDICATIONS OF A STORM. — FOUR NICE SALMON. — A FAMILY OF WILSON'S SNIPE. — HABITS OF THE SNIPE. — THE DOWITCHER. — ROBIN SNIPE. — JACK SNIPE AND THEIR HABITS. — ALL ABOUT PEEPS. — THE RED-BACKED SANDPIPER. — BEACH BIRDS AND THEIR PECULIARITIES. — THE MARLIN, OR GREAT-MARBLED GODWIT. — THE HUDSONIAN GODWIT. — WINTER YELLOW LEGS. — SUMMER YELLOW LEGS. — THE SPOTTED AND SOLITARY SANDPIPERS. — TEETERS. — AN APPROACHING STORM. — HEAVY THUNDER AND LIGHTNING. — THE STORM BURSTS. — PHOTOGRAPHING LIGHTNING. — ALL ABOUT THE WILLET. — THE UPLAND PLOVER. — THE SICKLE-BILLED CURLEW. — JACK CURLEWS. — DOE BIRDS AND THEIR HISTORY. — BLACK-BELLIED AND GOLDEN PLOVERS. — SHOOTING ON THE BACK BAY, BOSTON. — RING NECKS AND THEIR HABITS. — THE TURNSTONE — KILLDEERS AND THEIR HABITS. — A STORMY NIGHT.

HEN I arose and left our tent I found the foliage of the shrubs and bushes covered with a heavy dew. The golden eastern sky was full of scattering clouds, which seemed to indicate that a windy day might be expected. The atmosphere was so chilly that a fall of but two or three degrees of temperature would have resulted in a frost.

In the northern woods a light frost even in July is not a very rare occurrence, and some old guides assert that they have known of there being a frost in every month of the year.

A pair of "chickarees" or red squirrels, chased each other in sport away from the tent where they had been gleaning some bits of biscuits and potato parings which we had dropped on the day before. Every one who frequents the woods knows how tame and even familiar the wild animals and birds become.

Repeatedly have I, while lying in my tent, had the red squirrel come to me for pieces of biscuit, and have even had them run over my feet and legs for the coveted morsels. The rabbit also soon learns that it has nothing to fear, and even the ruffed grouse loves to hang around the camp, and often, if not molested, becomes as tame and unsuspicious as a domestic fowl.

The most audacious of all visitors, however, is the Canada jay or "moose bird." He enters the tent without fear, and sometimes becomes a nuisance in consequence of his habit of pilfering such things as take his

fancy. Food, of course, is the chief attraction, and almost everything enters into his bill of fare. On one occasion I saw a jay flying away with a slice of salt pork in his bill, and on his return he stole a piece of toilet soap from my tent. The Canada jay is as amusing and interesting as the blue jay, but like that species it is very destructive to the eggs and young of small birds. I once knew of a pair of these birds destroying the young in four nests of the common snowbird in a single day. I found these nests in an old abandoned lumber road near the Magalloway river in Maine, one morning; in the afternoon, when I returned by the same path, every nest was rifled, and a pair of the jays were lurking in the trees, shouting defiance at us, while surrounded by the afflicted snowbirds, that were uttering their cries of complaint and sorrow.

The guides were sleeping soundly, but a few blows of the axe that I gave in cutting some chips from a dry log for the purpose of kindling a fire quickly awakened them. They soon had a rousing fire started, and its warmth was far from unacceptable.

"'T is cold enough for a frost," said Hiram, as he returned from the spring with a pailful of water.

"Yes, but 't will be warmer before noon," replied William; "it is always warm after a cold night in the summer, and if we don't have a good bit of rain before midnight I 'm mistaken."

"Those clouds more wind than rain," said François, pointing to the east.

"That 's all right," replied William, "but they are banking up in sou'west and south, too; we 'll see rain inside of twenty-four hours."

"Well, maybe," replied François; "loon, he holler up in the air; allers storm after that, maybe." As he spoke, the shrill quaver of a loon, high in the air, was heard, and the form of the bird was seen rapidly moving towards the west.

"He old bach (bachelor) loon," continued the guide; "no got squaw, great wanderer"!

In a short time we were joined by my friends, who with towels in hand were about to take their matutinal dip in the lake.

"It 's pretty cool this morning," exclaimed the Judge. "I wished I had another blanket at about daybreak."

"And so did I," said the Doctor, "it was certainly the coolest summer morning I ever knew of; the fire feels good."

"Yes," I added, going to the tent for a towel, "and so will a plunge in the lake, and a good 'rub down' after it; there 's nothing like it."

Immediately after breakfast we took our rods, with the intention of fishing the pools below, for a few hours. Hiram and William accompanied us, while François remained at the camp for the purpose of securing a good supply of firewood, as a provision against the inclement weather likely to soon arrive, and which might continue several days.

The Judge and I, attended by Hiram, took one side of the stream, and the Doctor and William, the other. The clouds which had been massing in all directions, now completely overcast the sky, and the breeze which had sprung up increased in force and veered around to the southwest.

"If there are any fish in the pools, we ought to rise them," said the Judge, casting a long line into the spume below the falls.

"Yes, sir," responded Hiram, "this ought to be a good morning for a saumon; the wind is from the right quarter, and the sun is clouded in."

"I will take the lower end of the pool, Judge," said I, "so that you can have full swing here. I think a fish or two must have come up."

At a point a few rods from the "rips," at the foot of the pool, I took a position and began casting. It is my custom to thoroughly cover the water, close at hand, before I put out much line, for the salmon is an uncertain fish, and often takes the fly almost at the angler's feet. Many a tip have I seen smashed by unexpected rises, the fisherman incautiously neglecting to use a short line before trying to reach farther out. If the fly is taken when the rod is being lifted for a back cast it almost always comes to grief. To the truth of this every angler can testify.

Carefully, therefore, did I drop my fly in the eddying current, close to the shore, where the water deepened quickly, and at almost my first cast I rose a handsome fish.

"You just missed him, sir," exclaimed Hiram, who had followed me, "he was a bit too slow. He was a quare divil, altogether, to be lying so close to shore."

"Yes," I replied, "he was pretty close at hand, but the water is deep at that place and the current seems to draw in there."

"He 'll come again, no trouble," said the guide.

I stepped back a few feet and made a cast or two over the spot where the fish had come up, and in a few moments he accepted my lure, and the tuneful reel proclaimed that he was hooked.

"Ah, ha"! exclaimed Hiram, triumphantly. "I knew he would take."

Across the pool the salmon darted, leaping as quickly and as often as a grilse, although it was a good fifteen-pound fish. Almost to the very shore he went before he changed his course, and then back into the deep water in the middle of the pool he returned, where he settled to the bottom and remained motionless.

"The Judge is fast to another saumon, too"! exclaimed Hiram, pointing to my friend, who had hooked a fish below the falls. "If the two get together there 'll be mischief, sure."

My salmon showed but little of the energy he had displayed at the outset and seemed loth to make many runs. In fact, he yielded to the lift of my heavy rod too readily, and after another brief struggle came tamely to the gaff.

"It was a tame fight, altogether," said the guide, "and no wonder, for the fish was hooked in the gills"!

On examining the salmon I found that in taking the fly he had drawn it into his mouth and had passed it through his gills before I hooked it. The fish was thus rendered almost completely powerless, and this plainly accounted for the easy conquest. Ordinarily the salmon, in taking the fly, ejects it from its mouth almost instantly unless it is hooked, and I have known of but two or three instances of its being hooked in its most vulnerable point, the gills.

"He was an unfort'nit fish, altogether," said the guide, pointing to a red circular wound on the throat; "see where a lamprey has been fast to him."

"Yes," I replied, "one of those abominable lamprey eels has been sucking at his life blood; it's not a common occurrence with a salmon, but I have often taken a trout with one of those parasites attached to its gills or throat."

Photo. by R. O. Harding.

A Determined Fighter.

A shout from the Judge at that moment was heard, and Hiram, seizing the gaff, hurried to meet him. My friend's salmon proved to be a determined fighter and he gave the Judge all he could attend to for a quarter of an hour at least, before he showed signs of yielding. All over the pool he went, sometimes leaping six feet in the air and taking out the line with the greatest speed.

"Sure, he's a lively beggar, altogether," exclaimed Hiram as he passed

me with gaff in hand. The race up and down the rocky shore had almost exhausted my stout friend and he was perspiring freely.

"Good enough, Judge," I exclaimed, "that salmon is more fun than a goat."

"He 's a plucky divil," said the guide, "and I almost think he 's hooked foul."

At length the fish began to weaken and the Judge, with the consummate skill of a master of his craft, took advantage of every faltering movement and of every display of weakness until, finally, stepping backward quickly up the shore, he brought the fish to a point where Hiram could use the gaff, and he, with a quick stroke with the gaff, lifted the salmon out on the shore.

"Twenty-three pounds," said the Judge; "he was strong enough for a forty-pounder."

"He was hooked in a corner of his mouth," said Hiram; "'t would be hard to drown him so."

"Well, we 've a pair of good fish, at all events," said the Judge, rearranging his tackle and preparing to return to the head of the pool. "I hope the Doctor has killed one, at least, for thus far his catch has been limited to trout."

Resuming my stand near the foot of the pool, I began casting again, but nothing rewarded my efforts except a few trout. At length, convinced that there were no more salmon left, I reeled up my line, and, climbing over the rocks, followed the shore down to the second pool.

I found the water so shallow by the shore that I was on, that there was no probability of my rising a salmon, and after taking a few trout, I laid my rod aside and walked to the foot of the pool, where the Doctor was busily engaged with a large salmon. As I drew near he was on the point of landing his fish, and William soon secured it with his gaff.

"Good"! I shouted across the stream; I 'm glad you have had such luck."

"Ah, but see here," he replied, holding up another salmon that was lying in the brakes near by; "I call this a pretty pair."

The Doctor had been fortunate, indeed, his fish weighing eighteen and twenty-one pounds.

"You 've beaten us," I exclaimed; "we 've only one apiece, but they are good ones."

"Four salmon in a forenoon in such water as this is not a bad catch," replied the Doctor," and I reckon we 've got all there are."

Gathering up our fish, we retraced our steps up the stream on our way to the camp. As I passed a small patch of meadow and muddy swamp near the shore, I thought I heard a familiar note, and on investigation I discovered a family of four half-grown snipe with the mother bird. The

old snipe was very anxious for the safety of her young, and ran back and forth between me and them until she had led them away; as she moved about she occasionally uttered her familiar cry, and it was this that had led me to the discovery of their whereabouts. I was rather surprised to find the snipe breeding in that locality, although I have often found them in the nesting season in the same latitude.

A close second to the woodcock in point of favor with both *gourmet* and sportsman is the Wilson's snipe, *Gallinago Wilsonii*, often, though improperly, called the "English snipe," as it is a different species from its European congenor.

Like the woodcock it passes the winter in the south, being found in great numbers in Texas, Louisiana, and other Gulf States, and moves north with the advent of spring; its migration is not as early, however, and its stay with us is but a brief one, before its flight is resumed.

Undoubtedly it nidifies to some extent in northern Maine, and I have found them nesting in Cape Breton, N. S., but the breeding place of the great body of this species is in a considerably higher latitude. In the spring, when the snipe arrives, it frequents the marshes and meadows where it feeds upon worms and insects, probing in the soft earth and mud for them after the manner of the woodcock.

At this season, while mating, although sometimes associating in detached flocks, they are most often found in pairs. During the period of courtship they occasionally mount high in the air, uttering their peculiar cry of *scaipe, scaipe*, darting and circling around each other with the greatest rapidity, and then diving down towards the earth, producing in their quick descent a curious rolling or booming sound which is caused probably by the air passing through the quill feathers of their rigidly extended wings.

It is during the autumn migration, however, that the snipe has the greatest attractions for the sportsman. This begins at about the middle of September, although the birds sometimes arrive earlier, particularly after a heavy northeast storm, when scores of them may be flushed in the area of an acre or two.

When taking wing they utter their squeaking cry and dart away in a zigzag course which, to an inexperienced hunter, is very perplexing; this flight soon changes, however, to a more direct one, and it is usually until this happens that the sportsman reserves his fire.

Snipe-shooting is by a great many gunners preferred above most other field sports. It always occurs in the open meadows and marshes where there are no trees or shrubbery to obstruct the aim, and as the birds, as a rule, lie well to the dog and are generally found in considerable numbers in their proper season, a day's outing among them is very enjoyable. Mr. J. Moray Brown, an enthusiastic sportsman, says: "In snipe-shooting

many sportsmen affect an indifference as to how they work their ground, and this indifference affects their success in a very marked degree. If you walk *up-wind* you give the snipe an advantage. At first sight this may appear an absurdity, for most birds take advantage of the wind and fly with it, or *down* wind. The snipe always rises *against* the wind. Let the sportsman bear in mind that if he wants to get the better of snipe — and what is woodcraft but approaching your game under the most favorable circumstances to yourself? — he must approach the bird's haunt down or across wind. Then when the bird rises he will try to face the wind and give a crossing shot, which will naturally expose more of his body than if he went straight away. Besides, the bird has then little chance of indulging in those corkscrew twists which make so many otherwise good shots miss him."

The snipe, like the woodcock, remains with us until late in the autumn, but its stay depends entirely upon the season.

If freezing weather comes on early and their supply of food is cut off, they depart for a more genial climate by the end of October or early in November. But if the season is a late one, and their feeding-places are not ice-bound, their stay is considerably prolonged, and I have shot both species in Massachusetts as late as the twentieth of November, and have even known of a few being taken early in December. That the autumnal migration to the south is caused by its food supply being sealed up by freezing weather is evidenced by the fact that the snipe winters in such high latitudes as the coast region in the vicinity of Puget sound, in Oregon and Washington, and even in the interior, near Fort Dallas on the Columbia river, where it has repeatedly been taken in midwinter. The climate on the upper western coast is much milder than that on the Atlantic in the same latitude, the severe cold of the latter being replaced in the other by what is properly a "rainy season."

When we returned to camp our catch made a handsome showing.

"Four more candidates for the smoker," said the Judge, "and all good fish."

François had prepared the dinner, and a generous repast it proved to be. We lingered over it a long time, and the reminiscences which were brought up would, if they could be recorded, make interesting and instructive reading. My friends were both brilliant conversationalists, and I enjoyed their chatter hugely. The afternoon proved one of the most sultry and uncomfortable that we had experienced; any exertion was distasteful, and we contented ourselves with burning tobacco, and, as the Doctor said, "taking things easy."

"I 'm a little surprised," said the Judge, after I had told him of my discovery of the snipe, "that the bird should breed in such a place as this. I thought they preferred a more open country, one where extensive marshes and swampy tracts are found."

WILSON'S SNIPE. COMMON SNIPE.

"They do," I replied, "as a rule, but like many other birds, they will nest almost anywhere that their fancy leads them."

"The common, or Wilson's snipe, is quite a different bird from the red-breasted snipe, or 'dowitcher,' that we get on Long island and in New Jersey so plentifully," said the Doctor, "yet many gunners class them as the same species. I have heard both birds called the jack snipe, yet neither is rightly entitled to the name."

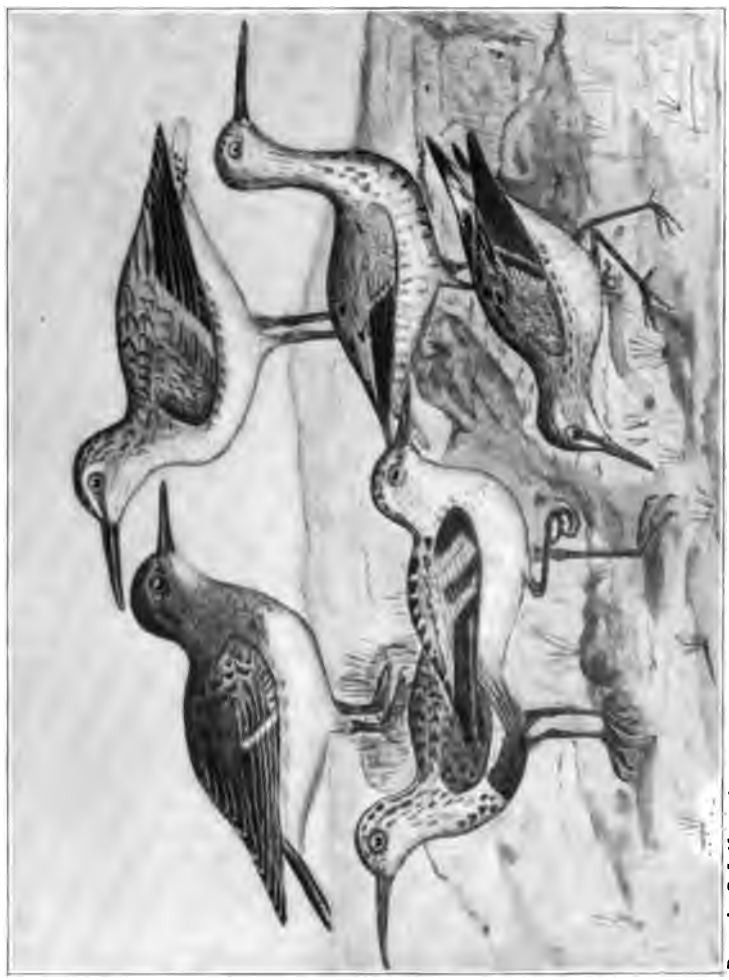
"Yes," I replied, "the dowitcher is different in plumage, form and habits from the Wilson's snipe, although by many gunners, as you say, they are regarded as identical. The dowitcher is the *Macrorhamphus griseus* of scientists, though formerly called the *Scolopax noveboracensis*. By sportsmen it is known by a variety of names, such as the dowitcher, red-breasted snipe, brownback, robin snipe, grayback, and quail snipe. It is one of the most common of our shore birds, and is well-known from Maine to New Jersey. In the spring migration it arrives on the coast of New England late in April or early in May, when it frequents the muddy flats in search of small crustaceans, and the marshes, where it probes for worms after the manner of the common snipe.

"Its stay with us at this season is but a brief one, and it continues its flight to the far north, where it passes the breeding season."

"In July, sometimes as early as the fifteenth, it returns in flocks of greater or less size, and remains on our coast until near the close of September. Its quail-like whistle is well known to sportsmen, who by adroitly imitating it, call the birds to their decoys, and so sociable and so unsuspicious is this snipe, that it returns again and again to the whistle of the sportsman, who is hidden in the tall grass or among the weeds of the marshes, until sometimes the entire flock is killed."

"Yes," said the Doctor; "the red-breast is one of the most unsuspicious of birds, and one that is easily decoyed. I have had rare sport with them in my blind of sea-weed or grass. The Jersey gunners are very successful with it; they put out a large number of decoys, usually in or about a shallow pool of water in the marsh, and they can call down a flock no matter how high it may be passing by; as you say, they will come back at the whistle of the sportsman, and even alight among the decoys and their dead comrades until the last survivor is shot. The dowitcher is fond of visiting the shallow ponds in the marshes, where it wades about in search of small shells and insects; it is not so fine a table bird as the common snipe, but in the fall, when it becomes very fat, it is by no means unattractive to the epicure."

"They are not always so unsuspicious," said I. "I have known them to keep high in the air and refuse to respond to my call. I have noticed this to occur most often when a strong easterly wind was blowing, but generally they are among the most easily decoyed of all our 'bay birds'; in



Drawn by C. J. Maynard.

PURPLE SANDPIPER.
RED-BACKED SANDPIPER.
SANDERLING.
RED-BREASTED SANDPIPER.
STILT SANDPIPER.
BONAPARTE'S SANDPIPER.

fact, I have sometimes thought they were among the most stupid of the waders."

"There is another bird, called the 'robin snipe,'" said the Judge, who had been attentively listening to our conversation. "I used to get a good many on the shores of Long island in my college days, but it was a shorter-billed bird than the red-breasted snipe."

"Yes," I replied; "the bird you refer to is the red-breasted sandpiper, and is not a snipe at all: it is the *Tringa islandica* of Linnæus, and is now called the *Tringa canutus*. Like all our shore birds, it is known among sportsmen by a multiplicity of names, the most common of which are the grayback, beach robin, knot, ash-colored sandpiper, red-breast plover, white-robin snipe, and robin-breast."

"I think we used to call it the robin snipe because its breast was almost of the color of that of the robin," said the Judge.

"Yes," added the Doctor, "but that must have been in the spring, for in the autumn the under plumage is white or grayish-white, hence its familiar name of white-robin snipe. It arrives in its spring migration early in May, but remains with us only a short time, its breeding grounds being in the Arctic regions. It frequents, as you well know, the flats and the shoal ponds on the marshes, where it employs itself in searching for small shell-fish. In the spring it decoys readily, but in the autumn it is rather suspicious. It returns to us often by the tenth of August, and moves southward late in September. It is a rapid runner along the beach, and is often seen following the retreating waves in pursuit of the small shells, shrimp, etc., upon which it subsists."

"It is a swift bird on the wing," added the Judge. "I remember that I used to wonder at the speed with which it passed my decoys. It is not as acceptable on the table as many of the other shore birds, although it becomes very plump when it has an abundance of food."

"The varieties of shore birds are so many in number," said the Doctor, "and their plumage varies so much that it is not strange sportsmen make mistakes. I have been in blinds with old gunners, who thought they knew all the 'bay birds,' but they sometimes blundered terribly. The name 'jack snipe' is the most pronounced misnomer, for the bird is not a snipe at all."

"You are right, Doctor," said I; "I have always wondered at the title being bestowed upon it. The jack snipe of southern gunners is the pectoral sandpiper, the *Tringa maculata* of ornithologists. I suppose, however, that its name was given it from its habit of lying to the dog and flushing and flying zigzag, above the surface of the meadow, like the common snipe. It is called, in different localities, the meadow snipe, krieker, grass snipe, short neck, fat bird, and brown bird. Its stay with us in the spring is very short, in fact, it makes no stop except for food.

"Usually, by the fifteenth or twentieth of August, it returns from the north, sometimes in flocks of considerable size, and it remains sometimes until late in October, and it has been shot in New Jersey in November. It is not as sociable as are many of the other shore birds. I have not found it as easy to decoy as many of the other waders, although it is indifferent to the approach of the sportsman. I have had excellent sport on large marshes in walking them up like common snipe. They move about in loose flocks and when startled do not, as a rule, fly together, but scatter in different directions. The pectoral sandpiper feeds on various aquatic insects, worms and crustaceans, and is a favorite with epicures."

"Yes," said the Judge," a fat, juicy jack snipe is a well-flavored bird, indeed."

"It has one curious habit," added the Doctor, "that is unique. An ornithologist (Nelson) says that in the pairing season this sandpiper inflates his throat until it becomes as large as his body, uttering at the same time a note that is 'hollow and resonant, but at the same time, liquid and musical.' He also says that the skin of the throat and breast becomes very flabby and loose at this season, and when not inflated it hangs down in a 'pendulous flap or fold, exactly like a dewlap, about an inch and a half wide.' At times the male rises twenty or thirty yards in the air, and inflating his throat, glides down to the ground, with his sack hanging below. Again he crosses, back and forth, in front of the female, puffing his breast out and bowing from side to side, running here and there as if intoxicated with passion."

"That is very curious," said the Judge; "I have seen the woodcock perform somewhat similarly and have more than once seen the male strut like a cock turkey."

"Speaking of sandpipers," he continued, "we used to get a great many of the least sandpiper, commonly called the 'peep.' Although they are small in size they are a *bonne bouche* not to be despised. Of course they hardly pay for the ammunition used on them unless one has a shot into a large flock. It seems almost incredible, but I once brought down ninety-seven of them with one discharge of my double-barrelled gun; that was in old times. I doubt if such flocks are seen now."

"No," added the Doctor, "the little 'peep' is far from being as numerous as it formerly was, but it is still quite abundant. It arrives in the spring quite early but moves at once to its northern nesting place. It returns, however, early in the summer and remains until late in September. It is probably as well known as any of the shore birds, but most gunners do not bother with it on account of its diminutive size."

"There are two varieties of the peep, I believe," said the Judge, "although they associate and feed together on the strand and in the marshes, and they have the same habits, but their plumage generally is quite different although sometimes similar."

Drawn by C. J. Maynard.

MARBLED GODWIT. HUDSONIAN GODWIT. SICKLE-BILL CURLEW. HUDSONIAN CURLEW.
TURNSTONE. ESQUIMAUX CURLEW.

"Yes," I replied, "the least sandpiper is the *Tringa pusilla* of Wilson, and is now called the *Tringa minutilla*, and the other species is the semipalmated sandpiper, the *Tringa semipalmata* of Wilson, or the *Ereunetes pusillus* of later writers. It may be readily distinguished from the other in all plumages by comparing the feet, the semipalmated sandpiper being partially web-footed.

"The peeps are usually unsuspicious birds, allowing the sportsman to approach them within gunshot. They run along the beach rapidly and when flushed will return readily to the whistle of the gunner. They subsist on minute crustaceans and aquatic and other insects, and in the autumn, as you well know, become very fat."

"We used to shoot another species that we called the brant snipe," said the Judge. "I think it was the red-backed sandpiper or, as some used to call it, the winter snipe."

"Yes," replied the Doctor, "it is still pretty abundant; it frequents the seashore and generally in flocks. It passes north in April and returns in September, sometimes earlier. It is the bird known to ornithologists as the *Tringa alpina*, I believe."

"Yes, it was so designated," I added, "but is now called the *Tringa alpina Pacifica*, although the last specific name is not essential, for it is as common on the Atlantic as on the Pacific coast. Like most of the other species it has a great variety of popular names, among which the most common, in addition to those you have mentioned, are the purre, fall snipe, and brant snipe. It prefers to range on the sand bars and muddy flats, where it feeds on the marine forms upon which most of the other shore birds subsist. It is a restless bird, constantly on the move. They gather in a thick bunch when on the strand or when performing their evolutions in the air, and as many as fifty have been shot by one discharge of the gun. It becomes very fat in the autumn and is a favorite with many *gourmets*. It remains on our shores until late in the fall, and for that reason, I suppose, is called, though improperly, the 'winter snipe.' It is more abundant on the New Jersey shores than elsewhere on our coast, and is a favorite bird with gunners."

"There is a great variety of beach or bay birds," said the Judge, "and they vary so in their different plumages that it is not strange there is so much confusion regarding them among sportsmen."

"You are right, Judge," I replied, "there is almost an infinity of forms and plumage and I have sometimes been in doubt of the identity of certain kinds when I have shot them."

"The species that is commonly called the 'beach bird' is one that is rarely mistaken for another; it is the sanderling, is it not"? asked the Judge.

"Yes, it is one of the best known of any; it is the *Calidris arenaria* of

ornithologists, a species that seems to be found all over the world. It passes north in the spring, usually without stopping, but returns by the middle of August, and is very abundant usually by the first of September. It associates with other varieties of shore birds, and seems to fraternize with peeps, yellow legs, and other species indiscriminately.

"It prefers the sandy beaches to any other feeding-grounds and follows the waves back and forth on the strand with great nimbleness and industry. It is an unsuspicious bird, and after a flock has been fired into it will, after performing a few ærial evolutions, uttering at the same time its soft, whistling note, return to the beach and resume its search for the small shell-fish and crustaceans upon which it feeds.

"It is a pretty good swimmer and when wounded will, to escape a pursuer, take to the water; although it becomes very fat I do not regard it, in an epicurean point of view, as desirable as some of the others."

"There is another shore bird called the 'marlin' that used to be pretty abundant, but which is now growing scarce," said the Doctor; "it is a handsome species, and I used to prize it highly."

"You mean the great marbled godwit, *Limosa fedoa*," said I. "Yes, it is rapidly decreasing in numbers. It is called the straight-billed curlew, and red curlew. It is a very suspicious bird, probably from being so much pursued, and is difficult of approach. It associates in small flocks and frequents the shoals and pools on the salt marshes. Like the curlews, when one is wounded, the others, attracted by its struggles and cries, hover around it, and the gunner, in consequence of this affectionate solicitude, sometimes bags the entire flock. The great and increasing army of sportsmen will probably exterminate the bird before many years have passed. It is a pity, for it is one of the most delicious table birds we have. The Hudsonian godwit is also becoming scarce. It is called by naturalists the *Limosa hæmastica*, but was formerly named the *Limosa Hudsonica*.

"It is known to gunners as the white-rump, ring-tailed marlin, goose-bird, and black-tail marlin. It has all of the habits of the other godwit, but decoys somewhat more readily. It is such a large bird, its length being fifteen or more inches, that gunners like to bag it."

"The bird is, then, of about the size of the greater yellow legs," said the Judge.

"Yes," I replied, "and that is another bird which is decreasing in numbers. It is called the winter yellow legs, yelper, and telltale snipe. It is a very noisy bird, and by imitating its shrill whistle the gunner readily brings it down to his decoys. In some sections it is called the horse-foot snipe on account of its fondness for the spawn of the king crab. It is a very graceful, dignified walker, and is altogether an elegant bird. It sometimes mounts high in the air and circles around, uttering its shrill, clear notes. It is called the *Totanus melanoleucus*, but was formerly named the *Totanus vociferus*."

"It is a considerably larger bird than the summer yellow legs," added the Doctor.

"Yes," replied the Judge, "the little yellow legs is only about ten or eleven inches in length, while the other is fifteen inches. I think the common yellow shanks, as it is often called, is one of the best known of the marsh birds. It is found almost everywhere along our coast, and, in fact, on the whole continent."

"Yes," I added, "it is found throughout the Union. It arrives in New England early in May. It is social in its habits, and gathers in flocks, frequenting the muddy flats and the shallow ponds on the marshes, where it gleans its food of minute shell-fish, worms, shrimps, and other small crustacea. It is the *Totanus flavipes* of scientists. I have often seen it wading in the pools in pursuit of minnows.

"It is almost continually calling to others of its species, and its three short, shrill notes are a welcome sound to the gunner. It stools well, obeying the sportsman's whistle readily, and as it comes to the decoys it glides smoothly along, gradually lowering its long yellow legs and alighting among the decoys without hesitation. It will return to the gunner's whistle, even after the flock has been fired into. I have found the summer yellow legs in considerable numbers on the meadows at the upper end of lake Umbagog, Maine, and on the muddy shores of the dead waters of rivers emptying into the Schoodic lakes; they came readily to my whistle, and they were sometimes accompanied by wisps of eight or ten Wilson's snipe, which, to my surprise, came to my whistle as freely as the others."

"Gentlemen," exclaimed Hiram, approaching our tent, "shall we cook the supper"?

"Supper"! said the Judge, "why, it seems as if we had but just eaten dinner. Bless my soul, it's nearly six o'clock."

While the supper was being prepared we fished the upper pool, "more for the exercise," as the Doctor said, "than with the expectation of getting a salmon."

For a half hour we cast diligently, but with no response except from a chance trout or two.

"Our talk about sandpipers," said the Judge, "has brought a visitation from them; see, there's a whole family"! As he spoke he pointed to a pair of spotted sandpipers with four half-grown young that were running down the shore, uttering their familiar notes, *tweet, tweet, tweet*, as they clambered among and over the pebbles and small rocks.

"Yes, Judge," I answered, "they have hatched their young near here. It is one of the few species of waders that breed in our latitude. Perhaps none of our summer birds are distributed so generally as this. Every pond and stream has two or three pairs breeding on its shores, and it is as abundant in the most thickly settled as in the more retired and

Drawn by C. J. Maynard.

SPOTTED SANDPIPER.
PIPING PLOVER.
WILSON'S PLOVER.
SEMIPALMATED PLOVER.
RINGNECK.
RINGNECK.
LEAST SANDPIPER.
SEMIPALMATED SANDPIPER.
PEEP.
PEEP.

secluded localities. It arrives from the south about the tenth of April, and, separating into pairs, it soon commences the duties of incubation. It manifests no preference for a location near the seacoast to one in the interior; and I have found it breeding as abundantly on the shores of lakes in the depths of the Maine forests as on the low, sandy islands, or in the marshes by our seacoast.

"Unlike most other species of its class, it does not court the society of others, and it is almost as reserved in its habits as its cousin, the solitary sandpiper. Its flight is generally low, its wings being kept bent at an angle beneath its body. It has a peculiar note, *peet-weet, peet-weet*, easily recognized."

"It 's the bird the gunners call the 'teeter,' is it not"? asked the Doctor.

"It is," I replied; "its comical appearance as it tilts its tail and bobs its head, has caused many a smile. Every farmer's boy is familiar with its habits, and answers its whistle as he drives the cows across the pasture. It was formerly known among naturalists as the *Totanus macularius;* its present technical name, however, is the *Actitis macularia*."

"It is quite a different bird, then, from the solitary sandpiper"? queried the Doctor.

"Oh, yes," I replied; "that species is even more solitary in its habits than the 'teeter.' It is called the *Totanus solitarius*. It has many of the odd ways of the other, bowing its head and elevating its tail in a comical way. It loves to frequent little ponds and streams among the woods, and for that reason is often called the 'wood tattler.'

"When come upon unexpectedly, it utters its peculiar whistling note, and runs off quickly over the muddy ground that it delights to visit. If forced to take wing, it darts away in an irregular flight, but it quickly alights again, folds its wings, after extending them a moment over its back, and resumes its quiet, dignified manner. It is one of the handsomest of our waders, and breeds more or less frequently in our latitude. I have seen it in Massachusetts all through the summer. In the autumn it sometimes visits the seashore, and occasionally, though not very often, joins with the flocks of other species. As a rule, however, it prefers the society of a few of its own species, and is rather a bird of the interior than one of the shore."

"Well, gentlemen," exclaimed the Doctor, "it is supper time, and I propose that we return to camp."

We found that the guides had cooked a bountiful repast, to which we did full justice.

In the early evening the distant rumbling of thunder was occasionally heard, and the clouds gave every indication of a heavy rainfall. The guides gathered together, and placed under cover everything that could be

injured by the wet, and with a few sheets of birch bark stretched over a frame in the form of the letter A, they made a covering for the smoker which would keep out the rain. Of course the ends of the cover were somewhat open, in order that the smoke might find egress.

The rain, as night shut in on us, began to patter down, and soon it came in a steady pour, and the grumbling of the thunder, which had until now been far away, came nearer and nearer until its heavy peals almost shook the earth.

"By Jove!" exclaimed the Judge, as we sought the shelter of our tent; "there is no place like the woods for a thunder storm. I love to lie under the canvas and listen to it. How it echoes and reverberates among the mountains; how vividly the lightning illuminates the surrounding scenery, which in another instant becomes all blackness again. It is one of the greatest and most thrilling of Nature's phenomena."

"Yes, Judge," said the Doctor; "it is all very fine and interesting, as you say, and I also love to watch a thunder storm in the woods; but I prefer to have my tent away from tall trees. We have two or three towering old pine stubs close to camp, which might unpleasantly fall upon our tent. I once had a windfall come down within a yard of my sleeping place, which had it struck me, would have demolished me."

"We will not worry about it," replied the Judge. "We can go only once, and I never give such accidents a thought."

As he spoke a tremendous clap of thunder occurred, accompanied by a flash of the most vivid lightning. Another peal followed it, heavier than the first, and then a heavy crash, and the fall of a dead tree in the woods, near by, was heard.

Inst. Photo. by E. A. Samuels.

A Vivid Flash of Lightning.

"Decidedly, this is getting interesting," exclaimed the Doctor.

"Glorious," said the Judge," it is one of the grandest storms I ever witnessed."

While they were commenting on the storm, I adjusted my camera with the intention of securing a photograph of the lightning flash, should another vivid one occur, and standing with my apparatus ready, at the entrance of the tent, I waited for my opportunity. It soon came; a flash so intense as to be actually blinding was seen, and in an instant I pressed the bulb, and later, when the plate was developed, I found that I had secured the flash in the utmost perfection.

"Well, Samuels," exclaimed the Judge, "that is a little out of the usual run of photography. I have seen many attempts at photographing clouds, but never an effort at photographing lightning."

"Yes," I replied, "a good many enthusiasts are after lightning flashes, but they rarely get a good clean one."

Such a heavy rain as fell that night, seldom occurs. With pipes alight, we listened to the downpour on our canvas roof, and passed the hours in discussing the various things which go to make up the conversation of sportsmen in the woods.

"This storm will give those little sandpipers a drenching," said the Judge; "they were not half feathered, and will probably have a hard time of it."

"No, Judge," I responded, "the old ones will secure a safe shelter for them. I venture to say they are as dry as we are."

"In speaking of the spotted and solitary sandpipers, this afternoon," said the Doctor, "you said they were among the few species of waders that breed south of the Arctic regions; there are others that breed in New England."

"Oh, yes," I replied, "there are several well-known species which rear their young in our section, although, of course, they are few when compared with the whole number. For example, the willet, or the semi-palmated tattler, as it is sometimes called, the bird formerly named by ornithologists the *Totanus semipalmatus*, but is now known as the *Symphemia semipalmata*. It breeds in New England, usually in the shore marshes, but its nest has been found in a rye-field twenty miles or more inland. If a person finds the nest the bird rises into the air, flying around the intruder, and uttering its shrill cry of *pill-willet, pill-willet*, which may be heard at the distance of a half a mile or more. It is a bird of rapid and graceful flight; it is usually found about the salt-water marshes, and on the shoals and bars of bays and inlets, and is frequently seen wading deep in the water, and as its partially palmated foot indicates, it is a good swimmer.

"It is a shy, suspicious bird, and rarely allows the sportsman to

approach it. It, however, sometimes stools well, but generally is shy of decoys. It is not as desirable on the table as many of the other species, but sportsmen eagerly seek to obtain it, probably on account of its size and handsome plumage."

"The upland plover is another species that breeds in New England," remarked the Judge.

"Yes," answered the Doctor, "I have seen it in the breeding season many times in Massachusetts and Connecticut. Every summer a few pass the season on Nantucket, and I have found it in the old fields and pastures along the coast and in the interior repeatedly."

"Yes," said I, "it breeds in all the New England States. It has a multiplicity of names, among which the most familiar are the field plover, pasture plover, and gray whistler. Its technical name is *Bartramia longicauda*. In farming districts, when it is not pursued by sportsmen, it is very tame and unsuspicious, but where gunners abound it is one of the wildest and most unapproachable of birds. I have hunted it many times but have never succeeded in shooting more than three or four in a day; it is obtained generally by stalking it, but some sportsmen use a horse and wagon in hunting it.

"It is a handsome, graceful bird on the ground. When alarmed it runs a short distance before taking flight and utters its melodious, yet sometimes mournful whistle, as it disappears from view. It is rarely found on the shore, but seems to prefer inland fields and pastures, where it is found in small detached parties and where it subsists on grasshoppers, crickets, and other insects and seeds.

"I know of no bird that requires more skill in the sportsman than the upland plover, and there is hardly any that the epicure prizes more highly."

"That is right," exclaimed the Judge; "a good, plump upland plover is the epicure's delight.

"I am told that the long-billed curlew, or sickle-bill, as we used to call it, breeds in the United States," he continued.

"Yes," I replied, "it breeds all over the Union, but it is becoming more and more scarce every year, and many ornithologists believe that its extermination is only a question of time. It is easily decoyed, responding as it does almost invariably to the sportsman's whistle, and as it comes up to his stand in a compact flock the gunner often obtains repeated shots into the group, for the birds that are not killed return to the call and hover over their comrades on the shore. A very few sickle-bills, *Lumenius longirostris*, make a good bag, but their great size is about their chief recommendation, for I do not particularly fancy them on the table. In flying over the marshes their flock is wedge-shaped like that of wild geese, the leader often uttering his peculiar note, which is repeated by members of the flock. In coming up to the stand the birds approach slowly, their wings spread

out, thus offering a good mark for the aim of the gunner. He is a poor shot who cannot obtain nearly all the birds in a flock."

"The jack curlew is also growing scarce," said the Doctor.

"Yes, and for the same reason. It comes to the gunner's whistle freely, offers a good mark for his aim and is as sympathetic as the sickle-bill, for it returns to the stools or to the cries of its wounded comrades until the last bird in the flock is shot. Yes, the jack, or short-billed curlew, or the Hudsonian curlew, as it is usually called, is becoming fewer in numbers every year. It is the *Numenius Hudsonicus* of scientists, and in different sections is called the horse-foot marlin, striped head, and wimbrel; it breeds in the Arctic regions and returns to our coast by the latter part of August. It prefers the salt-water marshes to the beach, and feeds on insects, berries, and small crustaceans. It is not a favorite with epicures."

"It, then, is not the species that we call the 'doe bird,'" said the Judge.

"Not by any means," I answered; "the doe bird is the Esquimaux curlew, the *Numenius borealis* of ornithologists. It is smaller than either of the other curlews and often associates with the plovers and other bay birds. In my shooting excursions to Prince Edward island, in August, I have had great success with it. While not always coming to my plover decoys I could almost invariably whistle them down, and they counted up very rapidly in a day's bag. The northern shore of the island is a famous locality for these curlew, it being their first stopping place on their way south from Labrador.

"They reach the New England coast about the twentieth of August and remain with us until late in September, in fact I have heard of their being shot as late as the tenth of November. The doe bird feeds on grasshoppers and other insects, berries and seeds, and, as you know, is one of our greatest table delicacies."

"Yes," said the Doctor, "in my opinion it is equal in flavor to a woodcock or an upland plover."

"The black-bellied plover, or beetle-head, is another well-known bird," said the Judge, but I have always been somewhat mixed in regard to its plumage, the golden plover resembles it so much."

"Yes," I replied, "and yet when placed side by side the birds can be readily identified.*

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*For the benefit of those who have difficulty in distinguishing these birds I append the following descriptions from the "Birds of New England." — E. A. S.

Black-bellied plover. Adult. Bill strong, along the gape, one inch and five eighths, black, shorter than the head; legs strong, black; wings long; a very small rudimentary hind toe; around the base of the bill to the eyes, neck, before and under parts of the body, black; upper, white, nearly pure,

"The black-bellied plover, *Charadrius squatarola*, often called the 'bull-head,' makes its northern migration early in May and returns to our coast about the middle of August. It seems to prefer the shore more than does the golden plover, but it often associates with that bird in pastures and fields, where it feeds upon grasshoppers, and other insects, and seeds. Generally, however, it gleans its subsistence on the strand, and finds in the small shell-fish, and other minute marine forms, an abundance of food. It is somewhat shy, but I have generally had no difficulty in calling it to within gunshot by imitating its plaintive note.

"The golden plover, *Charadrius dominicus*, is, in my estimation, one of the best of our waders, in a sportsman's point of view, and I have had better success with it than with any of the others. It is a common bird, all

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and unspotted on the forehead; sides of the neck and rump tinged with ashy, and having irregular transverse bars of brownish-black on the back, scapulars, and wing coverts; the rump, also frequently with transverse bars of the same; lower part of the abdomen, tibia and under tail coverts, white; quills, brownish-black, lighter on their inner webs, with a middle portion of their shafts white, and a narrow longitudinal stripe of white frequently on the shorter primaries and secondaries; tail, white, with transverse imperfect narrow bands of black; the black color of the under parts generally with a bronzed or coppery lustre, and presenting a scale-like appearance; the brownish-black of the upper parts with a greenish lustre.

Younger and winter plumage. Entire upper parts dark-brown, with circular, and irregular spots of white, and frequently of yellow, most numerous on the wing coverts; upper tail coverts, white; under parts, white with short longitudinal lines, and spots dark brownish-cinerous, on the neck and breast; iris, black; total length about eleven and a half inches; tail, three inches; wings, seven and a half inches.

Golden Plover. Adult. Bill, black, rather short and slender; along the gape, one inch and an eighth, much slighter than that of the other; legs, moderate; no hind toe; tarsus covered before and behind with small circular or hexagonal scales; upper parts, brownish-black with numerous small, circular and irregular spots of golden-yellow, most numerous on the back and rump, and on the upper tail coverts, assuming the form of transverse bands generally; also with some spots of ashy-white; entire under parts, black with a brownish or bronzed lustre; under tail coverts, mixed or barred with white; forehead, border of the black of the neck, under tail coverts, and tibiae, white; quills, dark brown; middle portion of the shafts, white, frequently extending slightly to the webs, and forming longitudinal stripes on the shorter quills; tail, dark-brown, with numerous irregular bands of ashy-white, and frequently tinged with golden-yellow; legs, dark bluish-brown.

Younger. Under parts, dull ashy, spotted with brownish on the neck and breast, frequently more or less mixed with black; many spots of the upper parts, dull ashy-white; other spots, especially on the rump, golden-yellow; total length about nine and a half inches; wing, seven inches; tail, two and a half inches.

along our shore, and on Nantucket is sometimes so abundant that two or three hundred birds are killed, at a stand, in a day. My favorite locality is the northern shore of Prince Edward island, where I have shot, over my decoys, many very handsome bags.

"I know of hardly anything more exciting than the approach of a flock of thousands of these birds to the decoys. It passes through New England in the spring and fall migrations, but does not pause here, in either, longer than two or three days. It arrives from the south about the first of May, in small flocks of fifteen or twenty, and frequents the beach on the shore and marshes, in its neighborhood, where it feeds on small shell-fish, and crustaceans. It is irregular in its visits, in the spring migrations, being quite plentiful some years, and in others quite rare; it passes to the most northern regions to breed.

"It is in the autumn migrations that these birds are most actively pursued by sportsmen. The great flight arrives about the twentieth of August, sometimes a little earlier or later. In some seasons they do not stop in New England, but are often seen, seven or eight miles out at sea, flying at a great height, in immense flocks, towards the south. If a heavy north-east storm prevails, however, during their flight, they are driven to shore, and it is then that the gunners reap a harvest; for, during a storm, the birds fly low, and are easily called to decoys, and their great flocks afford a broad target for heavily-loaded guns. I have known two sportsmen to bag sixty dozen in two days' shooting, and instances are on record of still greater numbers being secured. The flesh of this plover is very delicate and fine-flavored, and the birds are in great demand in our markets."

"Yes, the golden plover is an elegant bird," said the Judge. "It seems almost incredible, but in my boyhood days I used to shoot numbers of this species in the then marshes of the 'Back Bay' of Boston, where Copley square and the public library are now located."

"Yes," said I, "and I also have killed yellow legs, and many other varieties of marsh birds in the same locality."

"And now, in that section," added the Doctor, "there is probably the finest residential street in America, Commonwealth avenue. What an astonishing change in comparatively a few years"!

"I think that the little ringneck plover is one of our neatest and prettiest shore birds," continued the Judge; "it is one of the most interesting species on the beach, and I always love to watch it running along the sands, as it gleans its food among the incoming and retreating waves."

"There are two species of ringnecks in New England, I believe," said the Judge.

"Yes," I replied, "the semipalmated plover, *Ægialitis semipalmata*, and the Wilson's plover, *Ægialitis Wilsonia*. The latter bird, however, is

Drawn by C. J. Maynard.

GOLDEN PLOVER.
KILLDEER PLOVER.
WINTER YELLOW LEGS.
BLACK-BREASTED PLOVER.
WILLET.
RED-BREASTED SNIPE.
SOLITARY SANDPIPER.
SUMMER YELLOW LEGS.
UPLAND PLOVER.
PECTORAL SANDPIPER.

more southern in its habitat, appearing in New England as a visitor only. They are readily identified, the Wilson's plover having a black bill, while the other has an orange-colored bill with a black tip, and a web between the outer and middle toes reaching to the second joint. There is also another species whose neck is partially ringed, called the 'piping plover,' *Ægialitis meloda*; it also has an orange-colored bill with a black tip, but the black collar extends only around the back of the neck. All these birds are found on the sandy beaches, salt marshes, and muddy flats in company with the peeps, and other small waders, and their food is similar to that of the others."

"The turnstone is another odd-looking bird," said the Judge; "he always seemed to me as if his head was upside down."

"Yes," I replied, "he is a sort of freak. He is called the *Arenaria interpres* by ornithologists, and by gunners is known as the 'calico bird,' 'horsefoot snipe,' 'brant bird,' and 'beach bird.' It does not seem to fraternize much with the other waders, but runs about the beach in search of small crustaceans: it is fond of the spawn of the king crab, or horse-foot crab, and this probably accounts for one of its names. Its habit of thrusting its bill beneath a small stone or pebble, and turning it over in search of food, is well known. It is a good swimmer, and I have seen it moving over the surface of the water like a small tern. It is, in the adult plumage, one of the handsomest of our shore birds."

"The killdeer is another handsome species," said the Doctor; "it also breeds in New England."

"Yes," I replied, "it is pretty generally distributed throughout the continent. It is not abundant, but seems to be found in pairs all along our shore, and also in the interior. It is the *Ægialitis vocifera* of naturalists, and it is well named, for it is one of the noisiest birds of our coast. Its loud call of '*kill-dee*,' '*kill-dee*,' which is often repeated, is well known. It is a rapid runner, and when in pursuit of its food, is very industrious. It is also very active on the wing, and often mounts high in the air, uttering at the same time its loud and well-known call. I have often seen it on ploughed fields and pastures, and when I approached it, it assumed an erect attitude and regarded me with curiosity. As I drew near, however, it flew high in the air and circled around over me, uttering its shrill and scolding cry."

"Well, gentlemen," exclaimed the Judge, "I don't know what suggested all this talk about waders, unless it was the heavy rain that still continues to fall. It keeps right on, and we shall have all the water in the river that we desire. It is growing late, and I, for one, feel sleepy."

"Yes," added the Doctor, "I think the storm will not keep me awake."

Our blankets were soon spread out, and although the din of the storm continued, and the roar of the falls increased in force, we quickly lost consciousness of them in slumber.

CHAPTER V.

A GLORIOUS MORNING. — SALMON IN FRESH-WATER LAKES REFUSE THE FLY. — A TIP ON COFFEE. — BLACK DUCKS AND THEIR HABITS. — SHOOTING OVER DECOYS. — A HANDSOME PAIR OF TROUT. — "LOON, HE GREAT FISH KILLER." — FRESH-WATER DUCKS. — THE HABITS OF THE SUMMER OR WOOD DUCK. — THE BALDPATE OR AMERICAN WIDGEON. — ALL ABOUT TEALS. — PINTAILS AND SHOVELLERS. — THE JUDGE HAS HARD LUCK. — CANVAS BACKS AND RED HEADS. — ALL ABOUT SCOTERS, COOTS, AND OTHER FISH-EATING DUCKS. — THE HANDSOME GOLDEN EYE, OR WHISTLER. — THE CANADA GOOSE AND BRANT. — SALMON PLAYING EACH OTHER. — CONGRATULATIONS AND A LIBATION. — LONG STRUGGLES WITH SALMON. — GREAT ABUNDANCE OF SALMON IN THE HUDSON STRAITS; THE UNCERTAINTY IN FLY-FISHING ONE OF ITS GREAT CHARMS. — ALL ABOUT THE STRIPED BASS. — THE SQUETEAGUE. — THE BLUEFISH. — TAUTOG FISHING. — THE BLACK SEA BASS. — FRESH-WATER GAME FISH.

AS usual, I was the first of our party astir in the morning, and what a glorious sunrise it was that greeted my vision as I stepped outside the tent! The heavy storm had saturated the earth, and the raindrops on the foliage of the trees sparkled like brilliant gems in the rays of the God of Day.

The atmosphere was redolent with the balmy odors which always follow a rain storm in the forest, the foliage of both living and dead trees exhaling a perfume indescribably sweet and delicious.

The guides, who were soon aroused, quickly started a fire, while I went to the falls for the purpose of ascertaining how much the water had increased in the stream. The lake had risen several inches and the flow of water down the falls was correspondingly swelled; in fact, it was now a smooth, unbroken incline, wildly rushing, of course, but sufficiently unbroken to permit the ascent of salmon should they make the attempt. *

The pool below the falls was so high that but little of the shore was visible, and for a few days, at least, our fishing would, apparently, have to be done from canoes.

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* The statement has been recently recorded that salmon "have been seen to ascend the falls of the Mingan river, P. Q., by leaping as high as fifteen feet from break to break in the falls." — E. A. S.

Returning to the tent I awakened my companions and reported to them the condition of the water.

"I expected a great rise in the river," said the Doctor, "for there was a heavy fall of rain nearly all night, and the small outlet of so large a lake must, of necessity, be filled."

"Well," added the Judge, "it will bring up the fish, and we must endeavor to prevent some of them from running up into the lake, for after they get there we are powerless."

"That 's true, Judge," I responded; "they will not rise to the fly, or, in fact, will not notice any kind of lure."

Of course instances are on record of sea salmon being taken with the fly while in fresh-water lakes, but they are not many in number. I have, time and again, seen the salmon and grilse jumping all around me in such waters and have used my best efforts to induce them to come to my flies, but they always refused. Fresh-water, or so-called landlocked, salmon act differently, for they will not only freely take the trolling minnow but will also sometimes take the fly.

Our usual bathing-place was covered with water, the temperature of which was considerably reduced, but we, nevertheless, enjoyed our dip and the subsequent brisk "rub down." A royal breakfast was ready in a short time and we discussed it with our usual appetites.

Among my meals in the woods the breakfast is the most enjoyable, and no item in it is relished more than a huge dipper of coffee. I am more fastidious about this drink than are most people. I used, formerly, to bring with me from the city a mixture of two-thirds Java and one-third Mocha, but found this last-named berry a trifle too rich, and I now prefer a pulverized mixture of Java with one-sixth Mocha added, and the solution must be filtered, not boiled. I also prefer an enamelled coffee-pot to a tin or agate one. Such coffee is a beverage fit for the most dainty, and it will not injure any one.

Our guides, of course, drank tea. I never could understand why they prefer this decoction, which, to me, is insipid to a degree, but I have noticed almost invariably that guides and other woodsmen refuse coffee if they can have tea, and such quantities as they drink, too! I have seen one replenish his pint dipper twice at a meal, and strong tea at that; such a dose would give me indigestion for a week.

After we had finished breakfast the guides took one of the canoes down the falls into the pool below, and the Judge, with Hiram and William, were soon employed.

The Doctor, François and myself took the other canoe for a trip up to Big brook, expecting to have good success among the spotted trout. During our trip up the lake the Doctor put out a large, bright trolling fly

on a long line, while the guide and I paddled rather slowly. He was soon rewarded by the strike of a heavy fish which, after a few minutes' struggle, came to the landing net. It proved to be another "laker" of about four pounds' weight.

"Him another tuladi," said François, as he killed the trout and stowed it away in the stern of the canoe. "Mic-Macs salt um down for winter," he added.

On our arrival at the mouth of the brook we found a pair of black or dusky ducks, with a family of eight young. Quacking like the mallard, the old birds led their progeny quickly away from our unwelcome vicinage, flapping and swimming until they disappeared up the brook.

The dusky duck, *Anas obscura*, is the most abundant of all our eastern fresh-water ducks. It breeds in all the New England States, but is found more abundantly in the northern sections of them in the breeding season. The country around Lake Umbagog, Maine, and the long stretch of meadows on the Magalloway river seem to be favorite nesting places for them. In the swamps and meadows on Big lake, the lower one of the Schoodic lakes, these birds used to breed in great numbers, but they were driven away by the numerous large pickerel which seized and devoured their young. They breed also in the swamps of Nova Scotia, where I have repeatedly seen families of them feeding in the near vicinity of farmhouses. I once stopped to watch a pair of old birds and their young in a ditch beside the road, believing them to be domestic ducks. They proved to be the wild birds, for there was not a house within a mile, but they were almost as tame as domestic water-fowl.

While localities in or near meadows, near ponds and lakes, are favorite nesting places, they often hatch their young in a swamp in which a small brook is the only water for miles around.

Early in September the dusky duck gathers in flocks of fifteen or twenty. It now becomes one of the most shy and wary of birds.

The following, from the *Birds of New England*, gives an idea of the manner in which they are chiefly obtained by sportsmen:

"It is now so difficult of approach, that the experienced gunner seldom attempts to secure it by stalking it. The sportsman, knowing the localities most frequented by these flocks, — generally meadows, in which streams or small ponds of water are abundant, — builds a bower (or stand) near the water, six or eight feet square, and five or six high, of the limbs of pines or other dense foliaged trees, in which he secretes himself at daybreak, armed with one or two heavy double-barrelled guns, and provided with three or four tame decoy ducks. One of these he anchors or moors out in the water, half a gunshot from the stand. The decoy, soon becoming lonesome, begins to call, when, if there are any wild ducks in the neighborhood, they answer the note, and soon fly to meet the caller.

"The sportsman, watching the approaching flock, holds one of the other decoys ready to throw; and, as soon as the wild ones approach, he tosses up and towards the anchored duck the one held in his hand, which is secured from flying off by a strong line fastened to its legs. The bird, moored in the water, seeing her mate flying towards her, immediately redoubles her cries, when the dusky ducks, after flying back and forth, alight beside her. As soon as they alight they gather in a bunch away from the decoy, and it is then that the sportsman pours in his first shot; he again fires when the ducks are rising from the water, and is often able to get four shots at a flock, before it escapes out of gunshot. I have passed many days in stands of this description, and have had my share of what is generally capital sport. It is, as a rule, only early in the morning and late in the afternoon that these ducks can be shot in this manner, and if they are much hunted, they approach the stands with great caution. I have had, in addition to black ducks, both kinds of teal, summer ducks, and whistlers, even coots, come to my decoys."

The dusky duck remains with us through nearly the whole year, and moves southward only in very severe winters. When the fresh ponds are not frozen it prefers them to the salt water; but in the winter it is most abundant in our bays and small creeks, where it feeds on small shell-fish, and other marine animals. In autumn it is one of the best flavored of our water fowl, but in winter it is not so acceptable, having much of the fishy taste of the sea ducks.

At this season considerable numbers are shot at dusk and on moonlight nights on the marshes, as they fly back and forth in search of food.

I have never found these ducks in such abundance elsewhere as on the shores of the Bay Chaleur. Thousands of them, in a flock, have I put up at a discharge of my gun, the air seeming filled with them, and with wild geese and brant. The southern shore of the bay, from Dalhousie to above Campbellton, and the north shore, from opposite the last-named place almost to Gaspé, are favorite feeding-places of these fowl.

"Lots of black duck here in the fall," said François.

"Yes, and other kinds, too," I added.

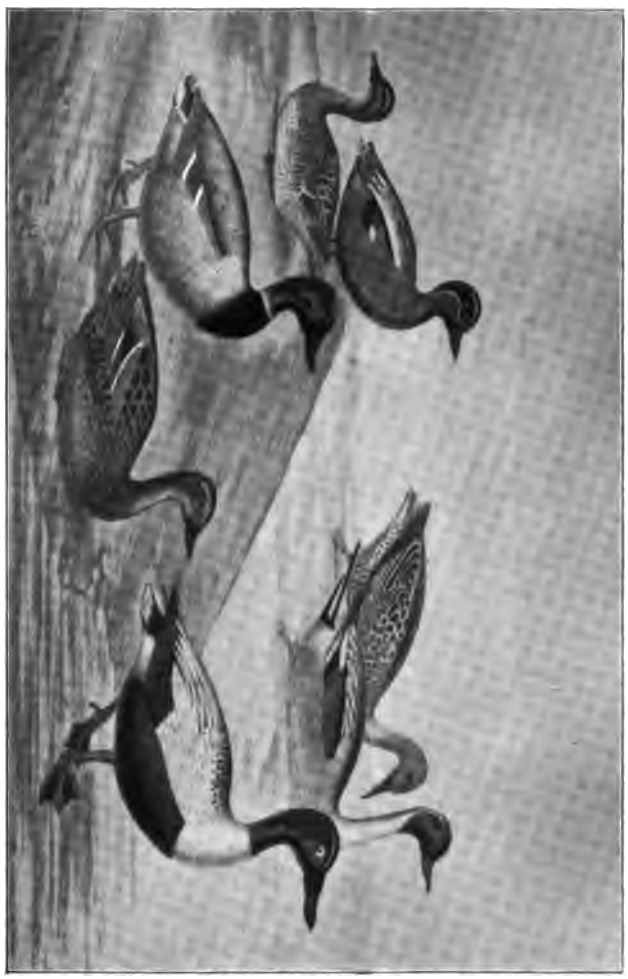
"Yes," he replied, "good many, sometimes."

"I suppose there are other ducks that breed in our latitude," said the Doctor, as he cast his flies across the mouth of the brook.

"Oh, yes," I replied, "the mallard, summer, or wood duck, golden eye, or whistler, the mergansers, and sheldrake, all breed in the United States, and in the Provinces."

"The mallard hardly counts with us in the East, does it"? asked the Doctor.

"It is with us occasionally, but not in any numbers. It is sometimes



GREEN-WINGED TEAL.
FEMALE. MALE.
MALLARD, MALE.

DUSKY DUCK.

PINTAIL DUCK.
FEMALE. MALE.
SHOVELLER DUCK, MALE.

killed in Lake Champlain, and on the Connecticut river, but it is there only as a wanderer. In most of the Western States it is one of the most abundant of water-fowl. It feeds on various aquatic plants and seeds and is a table delicacy. In the Southern States it is very abundant, and great numbers are shot in the rice-fields, which it frequents in search of food. As you are aware, it is the original of the common domestic duck.

"Like the dusky duck, if much hunted it becomes very wary and difficult to approach."

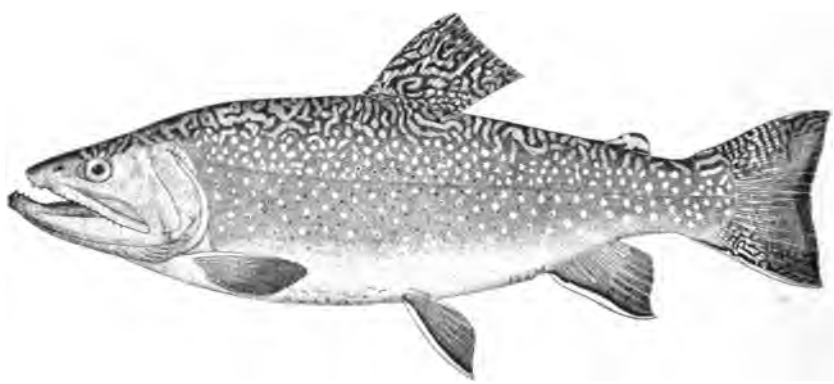
At this juncture a large trout seized one of my flies and in a moment another took the drop fly.

"That 's a fine pair," said the Doctor, when after a few minutes' fight they were landed by François.

"Yes," I replied, as I weighed them after they were killed, "three, and two and a half pounds; they are beauties, and almost as highly colored as autumn fish."

I have noticed many times that when one good fish is hooked another will hover around it until it is landed. So well known is this habit of the trout that when two or three veteran fishermen are together, if one hooks a large fish the others keep their flies in motion around it until it is landed, and one of them almost always succeeds in getting another good trout.

For a time we were kept busy, the trout rising in numbers at every cast. In an hour or two we saved a dozen or fifteen handsome fish that would average fully a pound in weight, putting back into the water a large number of smaller fish; when they refused to rise, and although we tried industriously to tempt them, we were finally obliged to reel up our lines and turn our canoe towards the camp.



THE SPOTTED QUEEN OF THE WATERS.

Every angler has had many similar experiences, and knows how capricious and fickle the spotted queen of the waters is. Sometimes a slight

change in the wind, or other trifling occurrence, will cause them to sink to the bottom where they will remain as motionless as so many stones.

As we paddled slowly down the lake, we passed very near a loon that was out fishing. He evidently knew that we were friendly, for he manifested but little of the distrust and wildness that the bird usually displays. As we paddled by him he swam along leisurely, his handsome spotted back showing plainly in the sunlight.

With a laughing quaver he finally disappeared beneath the surface, and shortly after was again seen, ten rods way, with a small fish in his mouth.

"Loon, he great fish-killer," said François; "eats lots of um."

"Yes," I replied; "but somehow I never begrudged the old fellow his share."

"The ducks on the fresh water lakes do not kill many fish, I suppose," added the Doctor.

"No," I answered; "they feed on seeds, water plants and animalculæ, but, excepting the mergansers and sheldrake, are not fish-eaters in the fresh water."

"The beautiful wood duck nests in old stumps, I believe," said the Doctor.

"It does; it is a common species all over the United States and is found in Mexico and the West Indies. It rarely visits the salt water, but prefers fresh-water ponds and streams; in nut-bearing forests it is frequently found, particularly if there is a water course among them; it is fond of beech nuts and acorns, and forages for them through the early autumn. It is in most localities called the 'summer duck,' and its technical name is *Aix sponsa*. It is by far the handsomest of our ducks, and its beauty is not excelled by any other species.

"It is rarely found in parties of more than six or eight, and usually is seen only in pairs. It is easily domesticated, and in confinement becomes very familiar. It is, among epicures, a great favorite. The nest of the summer duck is usually built in the top of an old stub or hollow stump, sometimes twenty feet high, and the mother bird carries the duckling to the ground by taking its wing or back of its neck in her mouth, and flying down to the foot of the tree. I have often seen it in retired localities, and as it flies through the green foliage its beautiful plumage shows most strikingly."

"It is a handsome bird, but the American widgeon, or 'baldpate' is also a beautiful species," said the Doctor.

"Yes, that is also a bird of very elegant plumage; it is the *Mareca Americana* of ornithologists. It is far from being as common as the summer duck, and like that species it prefers the fresh-water ponds to the bays; and as it feeds on seeds and tender aquatic plants, it is in high repute, gastronomically."

"To my taste," said the Doctor, "the blue-winged teal is among the most delicious of all the ducks."

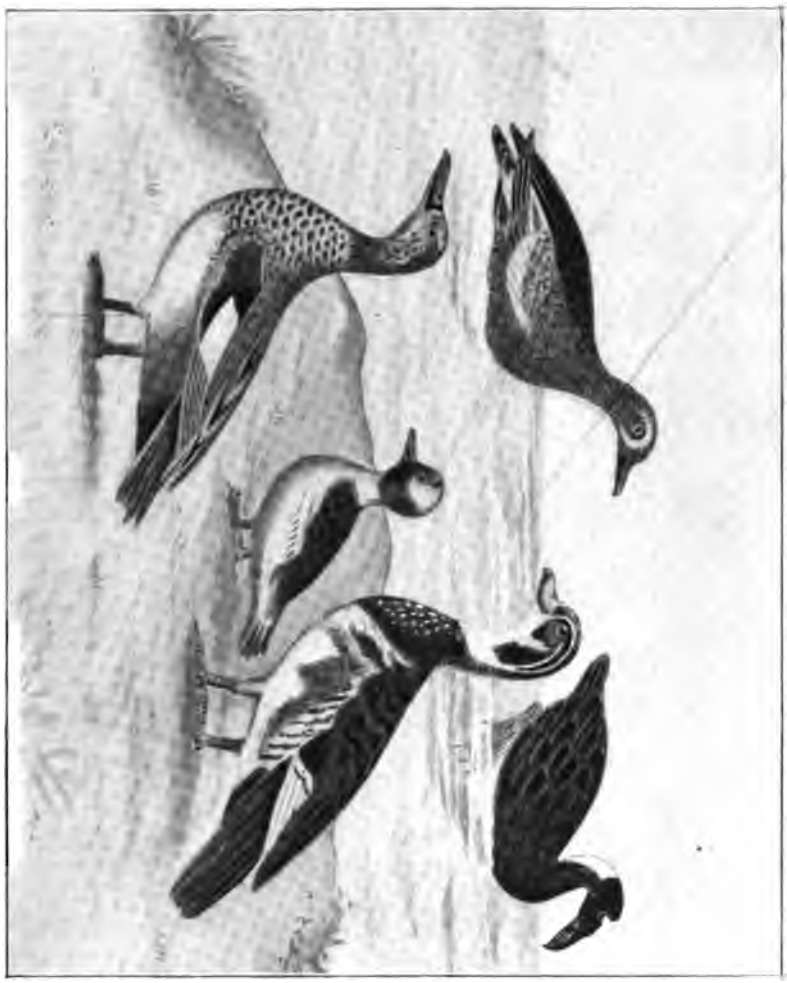
"Yes, a fat teal in the autumn is a delicious tit-bit. I have found it in great abundance about the New England fresh-water lakes in the fall, particularly on the meadows at the head of Lake Umbagog in Maine. It is more often found in small creeks near the seashore, than the summer duck or the bald-pate, but it prefers the small fresh-water ponds and streams. It is a remarkably swift-flying bird, and when startled darts away like a bullet. It dislikes cold weather, and on the first signs of frost is on its way to the rice-fields of the south. I have killed good bags of these delicious little ducks on the fowl meadows lying between Canton and Dedham, Mass. It is also pretty abundant in the ponds and streams of Plymouth county in that State, and in Connecticut is a well-known species. The little green-winged teal, *Nettion Carolinensis*, is another beautiful little species: in its habits it resembles the other, but it is a smaller bird. In the water it is very graceful. I have no doubt it could be domesticated, and what a beautiful little creature it would be in a park or private lake. Like the blue-winged teal, it subsists on seeds, aquatic plants, etc., and is of very delicate flavor on the table. It remains with us longer in the autumn than the other and associates in flocks, sometimes of considerable size."

"Some of the other fresh-water ducks have a very delicately marked plumage," remarked the Doctor; "for instance, the sprigtail or pintail duck I think is one of the neatest of all."

"Yes, it is a beauty," I replied. "It is the *Dafila acuta* of scientists. It is pretty common in New England, where it appears about the tenth of September; it is, as Wilson truly says, a shy and cautious bird, feeding on the mud flats and shallow ponds of the fresh-water marshes, and it rarely is seen on the seacoast. It seldom dives, and is very noisy when compared with most of the other small ducks; it comes readily to decoys, and when surprised it crowds together in a compact flock, thus giving the gunner an opportunity for a raking double discharge. It is called in some sections the "spreet-tail," and by many sportsmen it is named the gray duck: this title, however, belongs to another species."

"I have once or twice shot a broad-billed duck, called the 'shoveller,'" said the Doctor; "it was also a handsome plumaged bird, but its wide bill gave it an odd appearance."

"It is a rather quaint looking duck," I replied; "the ornithologists very properly have named it the *Spatula clypeata*. Many sportsmen call it the 'spoonbill.' It is rare on our coast, only an occasional bird being taken. It feeds, like the other fresh-water ducks, on various aquatic insects, plants, and tadpoles. A specimen that I examined, killed in Plymouth county, Mass., had its stomach filled with small pieces of aquatic roots; there were also fragments of small crustaceans.



BLUE-WINGED TEAL. BUFFLE-HEAD DUCK. SURF DUCK, OR BUTTER-BILL COOT.
GRAY DUCK, OR GADWALL. SUMMER, OR WOOD DUCK.

"The bird usually called the 'gray duck' by gunners is the gadwall, *Chaulelasmus streperus*. I have never met with it in my outings, but Audubon, in describing it, says that it dives well on occasion, especially on being wounded. At the appearance of danger it rises on wing — whether from the ground or from the water — at a single spring, in the manner of the mallard; and, like it also, ascends almost perpendicularly for several yards, after which it moves off in a direct course with great celerity. On being wounded, it sometimes by diving makes its escape among the grass, where it squats and remains concealed. It walks with ease, and prettily; in foraging it nibbles the tender shoots and blades of grasses with apparent pleasure, and will feed on beech nuts, acorns, and seeds, as well as on tadpoles and small fishes."

We found the camp deserted, the Judge not yet having returned. The smoker was evidently in need of replenishment, for but a very faint column of smoke ascended from it.

François started a fresh fire at the base and when it was well kindled he covered it with damp moss and ferns, which caused an intense smoke to pass up through the structure. The Doctor and I embarked in the canoe and skirted a portion of the lake with the intention of casting in the coves and over the bars and points for trout. We were unsuccessful, the fish being, evidently, "off their feed," or perhaps they had an abundance of food which the heavy rain had washed into the water. We returned to the camp at noon and found the Judge adjusting a new tip to his rod.

"Well, Judge," exclaimed the Doctor, "I see your tip has come to grief; how did you break it"?

"In some unaccountable way my line took a half-hitch on the end of the tip while I was casting, and, of course, was smashed when I hooked a fish. He was a good one, too; he carried off my casting-line; it was a provoking affair."

"Yes," added Hiram; "it was hard luck, altogether."

"Did n't you see any more fish"? asked the Doctor.

"Oh, yes, we got a nice one and a grilse, too," replied William, pointing to a salmon lying on the ground near by. "We 'll have the grilse for dinner."

"Well, Judge, your forenoon was not entirely wasted," said the Doctor; "we 'll try our luck this afternoon down there; we caught a handsome lot of 'square tails,' and one 'laker,' so we will have a variety, at all events."

After dinner we burned our usual modicum of tobacco in the tent, where we passed a couple of hours; we did not secure complete comfort, however, until we put the mosquito netting up at the entrance, for a fresh and hungry army of black flies, which had evidently been brought into life by the rain, beseiged us in a most savage manner.

"We found a pair of black or dusky ducks, with a brood of young, this morning, Judge," said the Doctor, after we were comfortably settled; "they were an interesting family, but did not differ much in appearance from domestic ducks. The ducklings were covered with long yellow and black down, and their wing feathers had begun to sprout; it seems strange to me that this species has not been domesticated. I believe it is said to be untamable."

"On the contrary," replied the Judge, "the black duck is now reared by a number of breeders, and it has become quite a domestic bird. It is raised chiefly for decoys and it is the best of all used as such."

"Not quite, Judge," said I; "it does not call nearly as well as the common mallard, and gunners greatly prefer a cross between the black and domestic duck to the pure-blooded birds. There is no reason why any of the fresh-water ducks may not be domesticated. The summer duck has been reared repeatedly, and, if one were willing to take the trouble, I have no doubt that all the species which eat seeds can be domesticated."

"It would be a grand thing if the canvas-back could be tamed," said the Doctor.

"It could be, I have no doubt," I answered, "but it would lose its delicious flavor if it were deprived of its favorite food, the root of one of the aquatic grasses."

"The canvas-back is a rare bird in New England," suggested the Judge.

"Yes, it seems to pass us in the migrations and is, when found with us, only a wanderer from the main flight. When its favorite food is not obtained it subsists on various marine plants and small shell-fish and, of course, then loses its delicacy of flavor. The root that it feeds on is the *Zostera valisneria*; this is different from that which the brant delights in, which is the 'tape or eel grass,' *Zostera marina*. Yes, the canvas-back could be domesticated, without doubt, for it is very fond of wheat. Wilson mentions an instance of a vessel loaded with wheat being wrecked at Egg Harbor, New Jersey; he says that large flocks were attracted to the spot, and as many as two hundred and fifty were killed in a day. The canvas-back is vigilant and difficult of approach, except in severe weather, when it is readily killed at 'air openings' in the ice. This duck is becoming more and more scarce and soon will be a rarity, indeed. Its table qualities are well known, but, in my opinion, they do not greatly excel those of the summer-duck and teals."

"A good many red-heads are palmed off for canvas-backs on the confiding public," said the Doctor.

"Yes, but they may readily be distinguished if unplucked," I replied. "The red-head is pretty common on our shores, where it usually prefers

the small bays and estuaries of creeks; it is also found in many of our large tracts of fresh water, where it feeds on the tender leaves and roots of the various aquatic plants, small fish, and aquatic *larvae*. It often associates with the canvas-back. It may be quickly distinguished from that bird by its bluish bill, which is towards the end black, and is about two and a quarter inches long, and by the color of its irides, which is yellowish-red; the bill of the canvas-back is black, the length is three inches, and it is very high at its base, and its irides are deep red in color. When feeding with the canvas-back, the red-head eats the stems of the plant of which the other species eats the roots. In the opinion of epicures this accounts for the difference in flavor of the two birds."

"I think the fish-eating ducks, as a rule, are very indifferent birds on the table," remarked the Judge. "The blue-bill coot is, perhaps, one of the best of them."

"I agree with you," said the Doctor; "the blue bill, or scaup-duck, is far from being unacceptable."

This duck, the *Fulix marila* of scientists, is pretty common on our coast, but is not what may be termed abundant. According to Wilson, it is met with along the whole extent of the Atlantic coast, and is a regular visitor to our western lakes. It arrives about the tenth of October, "associates in large flocks, and on its first appearance is easily decoyed, but after having been frequently shot at becomes more shy." It passes the night on the flats in flocks, seldom or never on the marshes, and is very quick in discovering the best feeding-grounds. I have had this duck come to my decoys when stooling black ducks, but that was in a heavy, easterly blow, and other sea ducks, such as white-winged coot, came in at the same time. When wounded it avoids pursuit by diving. When a large flock comes up to decoys, if fired into while on the wing the birds scatter in all directions, and a second shot, therefore, must be made at a single bird.

There are two species of blue-bill coots; the little blue bill, the *Fulix affinis*, is considerably smaller than the other, its length being two inches less. It is known by many gunners as the creek broad bill, because it more generally frequents the creeks and streams, while the other prefers the more open water of the bay. Like the other it feeds on small fishes and crustaceans, and it has many of the habits of its larger relative.

"The golden-eye is another well-known species," said the Doctor.

"It is a common species: it is the *Clangula glaucium Americana* of naturalists, and is called by gunners the 'whistler,' 'whistle-wing,' and 'great-head.' Its name is given it on account of the loud whistling of its wings as it passes through the air. It feeds on small fish and various aquatic plants, and, while living in the interior, is a fine-flavored bird on the table; but when killed on the coast is fishy and strong. Its flight is

SCOTER, OR COMMON COOT.
BRANT.
CANVAS-BACK DUCK.
BALDPATE, OR WIDGEON.
CANADA, OR WILD GOOSE.

very rapid, and it is a bird that is rather shy and difficult of approach. It is a good diver, and rarely comes to decoys. I have found it on the Schoodic lakes in Maine in considerable abundance. It associates with other species, particularly the scaup-duck or blue bill."

"The little butter-ball duck is often a delicious morsel," said the Judge, "but its table virtues were undiscovered by most gunners until a comparatively recent date."

"It is a genuine tit-bit," added the Doctor, "although it sometimes becomes as unpalatable as some of the other sea-ducks."

"Yes," said I, "it is a pretty little duck, particularly in the spring plumage. It is called the *Clangula albeola*, and gunners know it as the 'buffel-head,' 'dipper,' and 'butter-ball.' It associates with many of the other species of ducks on our coast, and feeds with them in the creeks and on the flats, subsisting on small fishes and crustaceans. It is an expert diver, and in the water it is difficult to shoot, as it dives instantly at the flash of the gun. It is very quick on the wing, and when several birds are together one always remains on the surface while the others are below in search of food. I have shot it in many of the bays and inlets of our coast, and have taken a number in ponds and other waters in the interior of New England. In taking flight, it rises against the wind like many of the other ducks, and knowing this fact, I have in old times been pretty successful in shooting it from a sailing yacht."

"Did you ever eat an 'old squaw'"? asked the Judge.

"Oh, yes," I replied, "but it is no better on the table than the coots. In my younger days it used to be very abundant in Massachusetts bay, and many a fine bag have I obtained there. It is known among scientists as the *Harelda glacialis*, and among gunners as the 'old wife,' 'old squaw,' and 'south southerly.' It is a hardy bird, and is with us often through the entire winter. It is naturally very timid, and keeps such vigilant watch that it is usually difficult of approach. It is one of the most expert of divers, and on the wing is a difficult bird to shoot; when wounded it goes to the bottom, and remains there until it dies. It is not a desirable table bird, and as it is very handsome and odd looking, it should be spared like the gulls and terns, as an interesting feature of life on our coast."

"The coots are still abundant on our shores," said the Judge, "and it is pretty exciting sport shooting them when they come to decoys. I have had no end of pleasant outings among them."

"Oh, yes," said the Doctor, "in the absence of better game they have their attractions for gunners. There are three species, as all sportsmen know."

"Yes," I added, "they are the butter-bill coot, or the American scoter, *Pelionetta perspicillata*, sometimes called the surf duck, the white-winged

coot, or velvet duck, *Melanetta velvetina*, and the common scoter, or coot, *Œdemia Americana*. All these birds are fishing-ducks, and their habits are in many ways similar. In shooting them gunners form a line of sometimes fifteen or twenty boats, which are anchored about two or three gunshots apart in localities where the coots are known to pass. Each boat has a number of wooden decoys anchored near it, and the birds are shot as they come to these decoys. If the coot is wounded, it dives to the bottom where it clings to sea-weeds until it dies. In my opinion, a common error made by gunners is in the use of too heavy shot. Lighter pellets make smaller wounds, which instantly close and prevent the bird from obtaining the relief from the flow of blood in its vitals, which is afforded by the heavier shot.*

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* I cannot refrain from adding the following on the scoters, written by Herbert L. Spinney, and published in the Maine *Sportsman*, May, 1897. — E. A. S.

"All along our coast are sunken rocks, some of which appear at low tide, while others are always covered with water from ten to fifty feet deep. On these submerged rocks grows a bivalve, known as 'mussels.' These occur in vast numbers, and form the principal article of food of the scoter ducks. To obtain these, the ducks dive, and tear them from the rocks. The observations of which I shall speak have been made between the east boundary of Sheepscott bay and the west of Casco bay, but I think they will apply to all the Maine coast at the present time. If we would observe the habits of these birds we must make our preparations the night before, which will consist of a good rowboat, and a dozen decoys, made of wood and painted black, or small buoys painted the same color will do very well, especially if it be in the fall, and an anchor and line to hold the boat in position. Having made these preparations, and having located the bedding ground which we wish to visit, we will wait for morning. My experience has been that these nights are at least forty-eight hours long, but, like everything else, they come to an end.

"As it is three A. M., and we have some three or five miles to row, if we want to be on the shoal by daylight, we must start. It is a quiet morning in May. Not a ripple disturbs the surface of the water. All nature seems quiet, unless the frogs from some small ponds may be heard singing their plaintive chorus, or occasionally the chirp of a small bird awakened from its night's repose by some intruder. As we step into our boat and leave the shore, how the sounds vibrate and echo on the quiet morning air! These are mornings never to be forgotten. As we row along, day-dawn begins to appear, the robin is heard from some tree-top, singing — for rain, we should say, if it be a cloudy morning. Soon the song sparrow is heard, and now the world in general seems waking up. But here we are on the grounds, and we must get our decoys out. These are all fastened two or three feet apart, to one long line, by a short line from each decoy, called a 'lanyard.' On one end of this main line we will tie a rock to hold the whole on the bed, and after the decoys are all in the water we will bring the last end up in line with the first, so as to form a half circle, and

"The eider duck is another handsome bird," said the Doctor, "but like the coots it has no table value."

"Yes," I replied, "it is a species common to both continents. In Maine it is often called the 'squam duck.' It is a beautiful bird in the spring plumage, and every one knows of its valuable deposit of down that it uses in the construction of its nest.

"Like the coots it subsists on fish and molluscs, and its flesh is strong and unpalatable. On the coast it is much sought after, particularly in the bays and inlets of Maine, but almost solely because it is a large bird and makes a handsome bag. It finds its way to the city markets, but I think it is eaten only by those who have no discriminating taste. Hawkers often carry these and the large coots about the streets, and they are probably bought by the unwary seekers for 'wild duck.'"

"Well," said the Judge, "among all the sea-fowl my preference lies with a nice plump brant. I think it is one of the finest of all the species."

"Yes, Judge, it is one of the best. I have found it in immense flocks in the Bay Chaleur, where, as I before said, it feeds on the root of a sea grass somewhat similar to that upon which the canvas-back subsists. I have seen the beach for miles covered with the stalks of this grass which the birds had torn up and eaten the roots. They are then in prime condition, and of almost as fine flavor as the canvas-back.

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anchor it as we did the first, after which we move away from them about twenty-five yards and anchor the boat. Now we are ready, and as daylight increases we begin to see the different kinds of sea-fowl moving to their several feeding-grounds.

"But here comes a flock of ducks straight in from sea where, resting on the water, they have drifted a number of miles during the night with the current. How eager they look as they see our decoys, which they suppose to be their associates of the day before. If we do not shoot at them they will light with the decoys or close by them. Soon, however, they recognize the deception and, swimming with their necks stretched to their utmost length, take wing and away. And so they will come and go in flocks of from three or four to twenty-five and sometimes more; or perhaps two and quite often only one will be seen at intervals until ten o'clock, when, if shot at during the time, they will light on some other bed, a few returning all through the day to see if we have left their bed or if their comrades are feeding there.

"Should it be in October, when the young birds are going south, no amount of shooting will discourage them, and I have known the same flock, after having been shot at, to leave the decoys, fly a short distance and return the second and third time, although half or more of their number might be dead or wounded. I have let the young birds alight with the decoys and then watched to see what they would do. After sitting still a few moments, some of them would edge up to a decoy sidewise, but just before the instant for touching it they would find out their mistake, when they would

"The brant, *Bernicla brenta*, is much sought after by gunners all along our coast, and certain localities, which the birds seem to prefer, are always occupied in the proper season by ardent sportsmen. Most of the shooting is done from 'batteries,' or boxes, sunk in the sand, large and deep enough for the accommodation of one or more gunners. Sometimes there is nothing but a hole or pit in the sand, which is covered by canvas, and around this the decoys are anchored. The brant readily come to these decoys, and sometimes large bags are made in a day's shooting.

"The brant never dives for food, but when wounded will attempt to escape by diving. It is a great wanderer and seldom remains many days in one locality. Although south of New England it is killed in the autumn migration, it now seems to avoid us at that time and visits us only in the spring."

"The Canada, or wild goose, is the great prize to the gunners," said the Doctor; "a few of them make a bag worth carrying."

"Yes," said I, "and one worth striving for. Many a time have I laid out in my pit in the beach waiting for a flock to come, and what a 'thud' there is when an old gander drops to the gun. Though usually a bird of passage in New England, it makes a long stay in the St. Lawrence and in the Bay Chaleur, where it feeds on the roots of the sea-grass that the brant so well loves. I venture to say that I have seen five thousand in a

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jump sidewise, with a look which would seem to say, 'You are a little off size and color, where did you come from'? Again, I have seen them swim up to a decoy and peck at it, and when their bill struck the wood there would be another expression too ludicrous for anything. Then I should like to have been a good bird mind-reader.

"During the spring flight, if a male and female come to the decoys and you kill the male and the female goes clear, she will always return for the male, though the male will rarely ever return for the female. The gunners, knowing this, if they have to take chances on a pair of birds, always shoot the male first, for they know the female will return and they will be quite sure to get her. Another peculiarity common to both the white-wing and surf duck is this: if they pass between your boat and the land too far away to shoot, screech at them and they will always turn off from the land towards you. When they are too shy to come to decoys the gunners take advantage of them in this way. While all three species are the same in their other habits, I have never known of the American scoter being taken in this way, although I have tried it many times, for they go on their way as if nothing had happened.

"There may be miles of water with many shoals and nothing to mark the position of their accustomed feeding beds, and though the birds have drifted all night with the current, yet, however dense the fog, they will always fly direct to the particular shoal on which they have been in the habit of feeding, notwithstanding the fact that there are plenty of other shoals in the vicinity; for each particular flock of ducks, if it contains

Golden-Eye Duck, Male. Eider Duck, Male. Old Squaw. Male. Female. Eider Duck, Female. Scaup-Duck.

INTERIOR OF WILD-GOOSE STAND, GUNNER'S POINT CLUB, SILVER LAKE, MASS.

Drawn by Edw. Knobel.

"MANY OF THESE STANDS ARE COMFORTABLE CABINS OR SHEDS."

flock rise at the report of my gun and circle around; the air was literally thick with them.

"After it reaches New England it is much sought by gunners, the usual practice being to shoot it from blinds or stands over decoys. Many of these stands are comfortable cabins or sheds: they are placed on the shores of ponds and other waters, and are erected in all suitable places, the geese showing no particular preference for localities on the coast. Probably in Plymouth county, in Massachusetts, the most systematic work in this line is done, and as many as twenty-five couples have been shot from one of these shelters in a day. The wild goose breeds readily in confinement, and the best decoys are living birds which have thus been reared. The goose has a heavy, laborious flight, and generally in a straight line, crossing land and water indiscriminately: in this it differs from the brant, which will usually fly around points rather than over them. The Canada goose is still an abundant species, and there is no immediate danger of its extermination, although one might expect this result, considering the systematic and extensive manner in which it is hunted."

"Gentlemen," exclaimed the Judge, "we are here for fish, and not for birds; I propose that we make the effort to obtain one or two before supper is ready."

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twenty-five only or numbers hundreds, invariably returns to the same shoal unless worried too much, when they will select some other.

"And so at the time of which I write, all along our coast on any morning in the months named, they can be seen by thousands. Acres of water will be black with them and flock after flock leave for more northern feeding-grounds, while others are just arriving from farther south.

"Now let us start some morning at the present time (March) under favorable circumstances, and see what we will find. Perhaps not a shoal for miles is occupied, and if at all, with only a few stragglers. But let us go to some headland that makes out into the sea beyond all the others, put out our decoys, and watch the result. About sunrise the ducks will begin to fly. Their numbers vary from a single bird to three and eight and sometimes fifteen, but the last will be the exception. If you stop through the day, you might count fifty such flocks, or see only a dozen, and even less than that. Instead of being a few yards above the water as they used to fly, they will be out of gunshot up in the air, and when they notice the decoys, instead of trying to reach them as formerly, they will double their exertions to put the greatest distance between them. This will not apply to every flock, yet the majority will do it. Whereas they used to come as near as could be wished, to shoot with a gun, now you need a cannon, and you must be very careful or you will strain that.

"And is this to be wondered at, when on any favorable morning in the months named, from one to eight boats with decoys may be found off every headland along the migration route, with every flock which comes along meeting the 'bang'! 'bang'! the whole length of our coast?

"Agreed," replied the Doctor; "we will take the other canoe down to the second pool, and you can continue your work in the upper one: who knows but you may kill the salmon that carried away your casting-line? Stranger things have happened."

The second canoe was carried by the falls, and the Doctor and myself embarked in it, accompanied by Hiram.

The water was still so high that we passed smoothly over "the rips" into the lower pool, and we began casting industriously. I do not like to cast from a canoe, and much prefer to wade a pool if the water is not too deep; I can handle my rod better, and can fight my fish more energetically. My custom has until recently been to wade every pool I could, but increasing years and threats of rheumatism now forbid such exposure.

The Doctor, who was seated in the bow, cast to the right and before him, while I was restricted to the left side of the canoe. The water was dark and eddying, and was full of drifting leaves, reminders of the recent storm. The shores of the pool were covered, and this meant that in the deepest portions there were from fifteen to twenty feet of water. We, therefore, used large, bright flies, but it was long before our lures were noticed.

"We were longing for more water," said the Doctor, "and we 've now more than we want."

"We 'd better give 'em a try down at the foot," said Hiram; "the water shoals there and the fish will, likely, be among the rocks above the rips."

The canoe drifted down to the quicker water, the Doctor and I both

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"In the spring, if the wind be favorable, they will not stop or even come in sight of the land here, but will fly straight from Cape Cod to some distant point in the east. The fall of '96 was favorable for birds, as the prevailing winds were northeast during the flights. I do not think I saw one thousand of these ducks during the fall, and I had letters from friends as far east as Mt. Desert complaining of the same thing. My brother, who worked at Delaware breakwater at Cape Henlopen the past summer, says the scoter ducks there are just as tame as they used to be here, and fed all around in the vicinity where they were at work, and did not mind boats, only to get out of the way. They do not gun them south, and the same birds which are so shy on the New England coast evidently feel a security in that locality which they do not enjoy on our coast.

"I will mention another point in regard to their migration: about the 6th of April the first flight of American scoter ducks comes, and ten days later, the surf ducks. About the first of May the white-winged scoter appears, and although there may be scattering birds of each kind during all the time, you will not see any flocks only as the flights come, and in the flight proper I have never seen the species together unless immature birds, and even then I do not remember of ever seeing all three species at once."

Photo. by Frank F. Dodge.

PORTAGING THE CANOE.

Photo. by E. W. Anthony.

I MUCH PREFER TO WADE A POOL.

casting diligently. In a short time, as my fly dropped behind a bunch of foam that eddied around the all-but submerged rocks, I had a rise, and sharply lifting my rod I hooked my fish; it was a good-sized salmon, and a very active one.

My reel had hardly ceased singing, after the first wild rush of the fish, ere I heard the Doctor's reel give voice, and the plunge of a large salmon showed that he, too, had been successful. The guide seized his setting-pole and shoved the canoe back into the deep water, where he held it as firmly as if it were anchored.

"You 've a pair of lively fish, altogether," he exclaimed, "and if they don't cross the lines we 'll be in good luck."

No sooner had the words been spoken than my fish, with a wild rush, darted to where the Doctor's salmon was lying, and in an instant both fish were jumping close together, and we could see that our lines were crossed.

The Doctor, like a true sportsman, made no complaint, but I felt provoked enough to make any but sacred quotations.

"Good-by to your saumon and casting-lines, gentlemen," said the guide; "I feared this would happen; unless the lines separate, the fish will take them away; sure, this has been an unlucky day, entirely; first, the Judge lost his leader and smashed his tip, and now "——

He did not finish his sentence, for the salmon began leaping more and more frantically; they were playing each other!

"We may save them yet," said the Doctor; "the lines are badly fouled, but the casting-lines are unusually good" — we tied our own from the very choicest selected gut — "and the fish can be conquered if no further accident occurs."

We kept up as strong a lift with our rods as we dared, and the fish soon perceptibly weakened. They assisted us by their own struggles, and the pace they kept up could not help bringing them to terms. Slowly they were drawn closer and closer to the canoe, which had begun to drift down the stream, until finally they both lay on their sides.

Hiram, with a quick stroke of the gaff, secured the larger fish, which he dropped into the canoe, and then when the other was again, though feebly struggling, drawn within reach, he impaled it and quickly threw it beside the other. I kept them both from jumping out until the canoe, which was already on the verge of the rapids, could be poled to a quiet spot.

"I never expected to save either of those saumon," exclaimed the guide; "it was downright good luck, altogether; 't is a bad tangle the lines are in, and, see, one of them is broken already; how we ever saved that fish is a wonder to me"!

Photo. by R. O. Harding.

POLING UP THE RAPIDS.

Photo. by Capt. Joseph B. Taylor.

LAYING A BED OF BOUGHS.

"Yes, but that fish has two flies and two casting-lines," said the Doctor; "one of the flies is mine, surely, but whose is the other"?

"It 's not mine," said I, examining it. "By Jove, it 's the fly and casting-line the Judge lost this morning."

"Upon my soul, I believe you are right," replied the Doctor; "won't the old boy be surprised when we show him his fish"! *

"Well, gentlemen," said Hiram, "ye have saved two nice fish that I was sure would be lost. Shall we try for more or return to the camp"?

"I 'm satisfied," said the Doctor; "it is growing late, and supper time is near."

The guide and I poled the canoe up the rapids and to the upper end of the first pool, while the Doctor followed the "carry road" around to the camp.

We found the Judge assisting in the preparation of supper, and this we knew meant a choice addition to our menu.

He was astonished to learn that his fly and line had been recovered and in such a singular manner.

"Sure, 't was great luck to save the fish when the lines were crossed in such a way," exclaimed William.

"Good fishermen, too," added François, approvingly; "no fool job to handle salmon that way."

At the Judge's suggestion a libation was poured in honor of the happy incident, and the guides were not forgotten in the ceremonial.

After supper was eaten we, as usual, adjourned to our tent, which had been thoroughly "smudged out" by the careful William, in our absence, and, lying on our fragrant newly-replenished bed of balsam boughs, we passed the evening in the conversation which such interesting men as my companions always kept in progress.

"It was a piece of great good luck that you succeeded in saving those fish," said the Judge; "such another might not occur again in a lifetime."

"Yes, it was good luck, if there is such a thing as luck," responded the Doctor; it certainly was not the result of any special skill on our part; the fish did all the work."

"Your modesty is uncalled for," replied the Judge; "if the rods had been in the hands of tyros the fish would never have been saved. I once killed a salmon under conditions which, if not quite as uncommon, were sufficiently trying while they lasted. I had hooked a very heavy fish, which, although not particularly active, displayed powers of endurance and strength that gave me all I could attend to for upwards of half an hour. I

* The incident I have described actually occurred in one of my outings. — E. A. S.

had my staunch old greenheart rod, which had been my companion for many years, and I did not spare it in fighting the fish, for I knew I could rely on it; but the salmon was an obstinate old veteran and would not yield. I had noticed a piece of driftwood swinging around in the pool but did not know it was of any considerable size until, in an evil moment, the salmon darted beyond it and then across, which brought the line through it, and in a moment the line was wound around a part of the drift stuff, which proved to be a portion of a mass of old roots.

"It was a sorry mess to be in, for every time the fish moved, it of course dragged the driftwood. I had two good canoe-men, fortunately, and while one kept the canoe in the deepest water the bow-man tried to disentangle the line. His efforts were futile, and I expected every moment that my leader would part; but the fish, which already had had a pretty hard fight, did not make any very energetic struggles; it kept on the move and consequently dragging the roots around; in fact, it thus played itself out just as your two salmon exhausted themselves. It was a thirty-pound fish when brought to gaff, but it was not killed for over an hour after it was hooked."

"If the roots had been fixed in the water," remarked the Doctor, "it would have resulted differently."

"Yes, of course, but even though they were floating it was good luck to save the salmon."

"Yes, Judge," I added, "you are also over modest, for if your rod had, as you say, been in the hands of a tyro, the gaff would not have been needed."

"Speaking of long contests with salmon," said the Doctor, after a pause, "I was reading recently in the London *Field* of an extraordinary struggle, one that eclipsed any I had ever heard of. The angler, a Mr. Wood, hooked an enormous fish late in the afternoon; soon after, evening fell, and for some time the struggle was carried on in the dark; but Mr. Wood's tackle was good, and as he was an experienced angler, he contrived to keep up the connection till the moon rose. Several persons appear to have been with him at this time, but as hour after hour stole by they left him, having far to go, until the party was reduced to three. Mr. Wood's two companions at length grew weary and lay down under a bush to obtain a few hours' sleep; and now Mr. Wood, left to himself, continued the struggle alone for hours through the silent night and by the light of the moon. It must have been a grand fight, under these circumstances. At length, when the fish had been about ten hours on the hook, one of Mr. Wood's friends came to his assistance and relieved him of the rod, and worn out, as he well might be, indeed, with the fatigue of such an encounter, he fell soundly asleep. The moon waned, and still the struggle went

on. Morn came, and Mr. Wood was awakened, and having taken some refreshment he was ready to renew the contest, and resumed the rod. Other fishermen began to arrive on the river's bank, and there found Mr. Wood still fast to the salmon, which had resisted all his efforts to land him through the livelong night. Up and down went the anxious group, following the fish to and fro until the day advanced; the morning passed and noon arrived, when it was thought that the fish began to show signs of distress, but Mr. Wood was again compelled from utter exhaustion to relinquish the rod, which was taken by Sergeant Maine, a skilful fisherman; and shortly after this the hook parted from its hold, and the line came home, leaving the gallant fish to his well-earned liberty, after having tired out three foes and been on the hook for nineteen hours and a half."

The weight of the fish is supposed to have been at least sixty pounds.

"It was hard lines, indeed, to lose the fish after such a fight as that," said the Judge. "There is a record of another protracted struggle which occurred a few years ago. A Mr. Denison hooked a large fish in the river Ness. The fish fought well, keeping the anglers on the move up and down the bank from evening until about four in the morning, when, by some accident, the reel caught in Mr. Denison's watchguard and the fish broke away; as they had seen him several times, he was estimated at hard upon fifty pounds. Probably ten or eleven hours were consumed in the contest; this incident, of course, fell short in point of endurance of that which occurred to Mr. Wood, which must be held as the stoutest fight with a salmon ever known."

"I have often wished I might visit some of the great rivers of the north," said the Doctor, "where salmon are found in such abundance that the Oregon fisheries pale into insignificance beside them; I have been told that some of the Labrador streams teem with them, but the coast of Ungavy bay in Upper Canada and Hudson straits seem to be incomparably rich in this respect. Mr. F. G. Raynor, the President of the Raynor Oil Company, says the salmon of that high latitude are undoubtedly the finest in the world. They are further north than any other salmon taken on this continent, and the lower the temperature of the water the better salmon are. The Restigouche, or any of the salmon of the St. Lawrence basin, are far superior to the Oregon salmon, and the Hudson straits salmon are just as much superior to the Restigouche fish. Besides the salmon the waters of the Hudson straits coast teem with a deep sea trout which has not its like on the face of the globe.

"But the method adequate for catching these fish is just as peculiar as the fish themselves are, and it is doubtful if salmon or trout fishing is done in the same way elsewhere. The coast of Hudson straits is indented by thousands of small bays and estuaries, and many rivers traverse it to the

bay. At low tide there is little water in any of these inlets, but at high tide the water rushes up into them for long distances. The tides rise twenty-five and even fifty feet. At high tide, in the salmon and trout-running seasons, these fish follow with the water into the bays and rivers as far as the tide goes, and swarm back with it when it ebbs. He says he has seen the smaller rivers, streams, or rather stream beds, one hundred feet wide, actually choked from shore to shore with the biggest salmon a man ever saw struggling upward with the tide.

"It is not more than eight or nine years ago that the first attempt was made to establish fisheries there on a large scale. Drawing seines was impossible, and the fish wheels of Oregon were impracticable. So a simple but exceedingly effective trap was introduced. It was not original with the salmon fishermen, the idea being borrowed from the porpoise fishermen of Hudson bay. Immense nets are made from the largest and strongest twine, and of length and depth to suit the inlet to be fished. At low tide the nets are set at the mouths of the bays or inlets, and the top of the net is hauled to the bottom so as to offer no obstruction to the water or fish as they pass upward with the rising tide. Just before the tide turned the line holding the floater side of the net to the anchored side is drawn out. The buoys instantly rise to the surface and the trap is set. When the tide comes back men are stationed above the nets some distance, and with poles and brush beat the water and make noises of various kinds. This is to keep the great body of fish from pressing upon the net at once, and as the fish are exceedingly timid they rush back up stream by the thousand, and will actually be left on the dry land by the receding tide, so panic-stricken do they become at the noises made by the men. When the tide has gone out, the dry beds of the inlets will be piled with tons upon tons of salmon or trout. Not salmon and trout, for both kinds are never found in the same inlet. In one the trap may secure fifty or one hundred tons of salmon at a run, while in the next estuary below the catch will be trout. He has seen 10,000 salmon taken at one haul.

"He says the marvellous salmon runs of the Oregon rivers are no comparison to the tremendous rushes of those Hudson straits fish. It may be that if the latter had big fresh-water rivers, to explore they would not be massed so thickly along the coast, but the channels they seek are not sufficient to let them all in. In his opinion, if the salmon supply of the world elsewhere should ever become exhausted, it can be replaced easily by the fish of those great northern waters. A thousand big vessels could take on cargoes of salmon and trout there every season without visibly lessening the supply."

"There would be no sport with the rod if salmon were as abundant as that," said the Judge. "One of the greatest charms of salmon-fishing

CASTING FOR STRIPED BASS.

Photo. by A. C. Gould.

is found in its uncertainty; who would long care for it if, at every cast, he could hook a fish? The fascination which now exists would soon disappear."

"You are right, Judge, "said I. "If one were always certain of killing fish he would soon lose the desire for fishing. I proved this once to my satisfaction. On a visit to the ponds of a well-known fish culturist in Plymouth, Mass., I was permitted to cast the fly in a pool where hundreds of great trout, weighing from two to six pounds, were plainly to be seen swimming around in the pellucid water. As my fly dropped upon the surface, dozens of fish sprung for it simultaneously. I had but to hook a fish, play it until it was exhausted, and then the trout was killed. It was simply a *battue.* I laid aside the rod when my third fish was landed, saying, 'this is not fishing, it is cold-blooded slaughter.' Yes, Judge, one of the great charms of angling lies, as you say, in its uncertainty; days without number have 'you and I and all of us' cast the fly without getting a rise, but we never lost our love for the 'gentle art.'"

"That's all very true," added the Doctor, "but it is sometimes pretty discouraging to work hard, day after day, and not kill a fish. I have had such experiences in fishing for striped bass, and I can tell you it takes a lot of patience to stand on the rocks and keep on casting through a whole tide and not have a fish respond."

"You are right, Doctor," replied the Judge; "I have had my patience pretty well exhausted with that noble, but uncertain fish, which I regard as the best of the salt-water species."

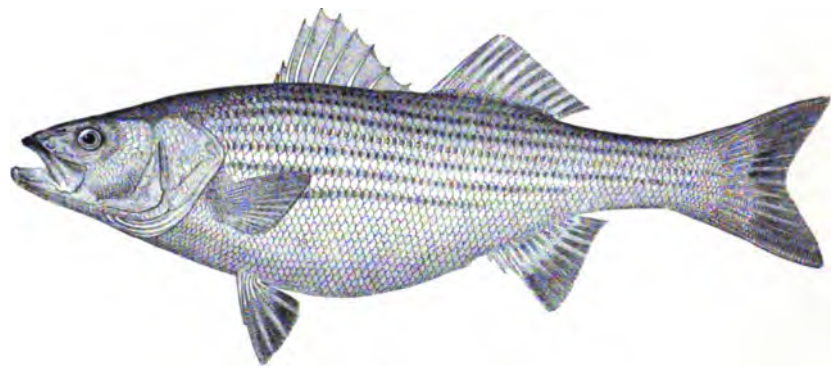
The Judge was not alone in his opinion, for of the many varieties of fish which are found along our coast, none is held in greater esteem by the angler than the striped bass. It is generally regarded as the game fish *par excellence* of our tidal waters, and ranks as high with many devotees of the rod and reel as does the salmon.

It is distributed more or less abundantly from the Gulf of St. Lawrence to Georgia: the writer has found it in the Bay des Chaleurs, and has known of its being taken off Cape Breton. At Cape Ann, Mass., it is in some seasons rather plentiful, and a number are captured at Nahant every year. It was formerly quite abundant in the Weymouth river, but is now seldom found in that stream, and it is comparatively rare on the coast from Cohasset to Provincetown, a few small stragglers only being captured every season.

Around Martha's Vineyard it is rather abundant, and in Buzzard's Bay and Narragansett bay it is one of the favorite species.

It seems to prefer a rocky coast to any other, and on that account, in many localities, particularly in the States south of New Jersey, it is named the "rock fish."

The striped bass is not a wanderer, like the bluefish and squeteague, but is local in its habits, remaining permanently in a given neighborhood through the year. In the winter it hibernates in bottoms of estuaries and bays, and is rarely seen until the warm days of spring arouse it from its torpidity. In May it begins to appear about the shore, where it industriously forages for the small fish, crabs, and other crustaceans upon which it principally subsists. In June it begins to get in good condition, and from that month until October the angler may seek it with success.



THE STRIPED BASS, OR ROCK-FISH.

It is unquestionably the most gamy of all our coast fishes. It has all the dash and endurance of the salmon, and its strength and rapidity of movement; its long runs and fierce struggles when it feels the hook, require in the angler the exercise of his best skill and greatest endurance and patience.

A ten or fifteen-pounder in the surf is a very powerful fish, and it is conquered only after a long and stubborn fight. A successful battle with such a fish, therefore, is an event well worth the attention of any angler, and when it is stated that thirty and even forty-pound bass are taken with rod and line, an idea may be formed of the fascination and excitement this angling affords.

There are several methods of fishing for this species.

Trolling with squid bait is practised to some extent on the New Jersey coast, and artificial as well as natural minnows are also used, the minnow being arranged on a gang-hook so that it will spin like a trolling spoon.

Still-fishing from the shore or from a boat anchored in a tide-way, or over a reef or rocky shoal, is also practised in many localities. The bait used is generally a piece of lobster or sheddar-crab, and if these are not obtainable, a sand-eel, shrimp or small squid prove an acceptable lure.

The tackle used in this method consists of a stout rod, a strong linen line, one hundred or more yards in length, on a multiplying reel: in a rapid

tide-way a swivel-sinker is of course necessary, but it should be only heavy enough to carry the bait down a few feet below the surface, a heavier sinker being very objectionable.

The hook should be attached to a piece of fine piano wire, for the reason that a wandering bluefish is likely to take the bait, and if he does so the wire is the only line that can resist his sharp teeth and powerful jaws.

Where bass of small size are abundant this method of angling has its charms; the fish bite freely, and a catch of one hundred, or more, in a day has been made in some localities by a single rod.

In the Potomac river and in the waters of the Chesapeake bay still-fishing for rock-fish is a favorite recreation, great numbers of one or two-pound fish being taken; larger fish in those localities, however, are not often obtained.

In our waters, particularly on Narragansett bay, the method most in vogue is by "casting" from the rocky shore. The bait used is a strip, four or five inches in length, cut from the side of a menhaden, which is doubled over the hook and fastened to it by a couple of half hitches of the line. No sinker is used, and as a rule no leader, although some anglers prefer one of double gut, such as is used in heavy salmon fishing. The line is reeled up until only a half yard or so is out beyond the tip of the rod, and the angler then makes a "cast" by raising the rod, giving it a backward, horizontal sweep, and then with a quick movement forward, throwing the bait out into the surf as far as possible.

This method of casting is acquired only after considerable practice, the novice rarely being able to put out any considerable length of line without either allowing it to overrun or become fouled.

The thumb, guarded by a woolen cot, is held to the reel to prevent its running too freely, but the pressure must be properly adjusted or the cast will be a failure.

Experienced anglers can make incredibly long casts and can drop their lure at almost any desired point within their reach. The portions of the menhaden that are not used for bait are chopped into small fragments and thrown into the water; these pieces, called "chum," are full of oil, which forms a greasy coating on the surface of the water that attracts the bass even from a considerable distance.

The angler, after making a cast, begins to reel in the line slowly, and if his bait is not accepted, he repeats his cast until a fish is hooked.

The first rush of a large bass, when he feels the hook, is somewhat startling; from thirty to fifty yards of the line are taken out with astonishing speed, and if the reel is provided with a click it rings right merrily.

After the first two or three runs the fish settles down in the water, and the angler then has an opportunity to recover some of the line.

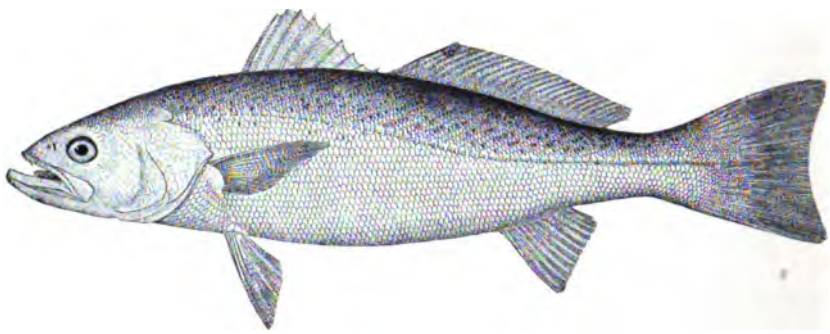
This must be done cautiously, however, for undue haste at the reel almost inevitably leads to a loss of the fish.

Unlike the salmon, the striped bass very rarely appears above the surface of the water in its contest with the angler, but it makes repeated efforts to chafe and cut the line against the sharp edge of a submerged rock, and tries in every possible way to foul it in the weeds and among the bowlders at the bottom.

The angler, therefore, must be constantly on the alert to foil these attempts, and, no matter how skilful he may be, he can never feel sure of his fish until it is gaffed and laid on the shore beside him.

A stout two-handed rod is needed for this method of angling; it should be stiff rather than very pliable, and the guides should be amply large in order that the line may pass through them with the utmost freedom.

"I have had very pleasant outings with squeteague, also," said the Doctor. "While it is not so grand a prize as the striped bass, it furnishes capital sport when it is running in good-sized schools; it is known in some localities as the 'weak fish' and 'salt-water trout,' but in New England it is generally called the 'squeteague.'"



THE SQUETEAGUE.

"Yes," I added, "it is a favorite fish with many, and capital sport is often obtained with it."

It is not such a wanderer as the bluefish, nor nearly as widely distributed, but is taken more or less plentifully all along the shore from Cape Cod to Chesapeake bay. I have found it in considerable numbers as far south as the Delaware breakwater, and have known of stragglers being caught north of Provincetown, but its favorite summer habitat seems to be the coast and estuaries of the Middle States and thence northward to Vineyard sound and Buzzard's bay, the greatest number being found around the shores of Martha's Vineyard.

In the opinion of many anglers, it is one of the most gamy of our salt-water fish, and an outing among the squeteague is looked forward to by

them with as keen anticipations of sport as is the annual trip to the northern streams by the salmon fisherman. It is a rapid-swimming fish, and covers a considerable area in its foraging. It is fished for by sportsmen sometimes — though rarely — by trolling, but usually by still-fishing from a boat which is anchored in the tide-ways that it frequents. The young flood-tide is generally the best, and from that to the half-ebb the greatest number of fish are taken. The tackle used is a strong bait-rod, with about fifty yards of line on a good-sized reel, a stout gut leader, a hook not too large, but with a wide bend, — ordinary trout hooks are used by many anglers, — a brass swivel-sinker heavy enough only to carry the bait to the proper depth, and a float, although this is dispensed with by some fishermen. The best bait is a piece of sheddar-crab, but when this is not to be obtained, shrimp, or a piece of lobster or quahaug proves successful.

The float is attached to the line at a distance from the hook equal to about two thirds the depth of the water, and is then allowed to be carried by the tide fifteen or twenty yards from the boat. The squeteague is a sharp, fearless biter, and the instant the hook is felt, the fish gives a vigorous run, sometimes taking out ten or fifteen yards of the line and causing the reel to sing merrily. The first run is always the strongest, but the fight is sure to be an interesting one as long as it continues. With almost electric speed the fish rushes about in every direction; now with a quick run it dives deep in the water, and tries to entangle the line in the weeds and rocks at the bottom.

Failing in this, it darts to the surface and leaps high in the air with all the agility that the grilse displays, shaking its head like a bass and making every effort to dislodge the hook; the angler, therefore, needs to call into requisition all his skill and patience, for in addition to its gaminess the squeteague has a very tender mouth, and the hook quickly springs out if the strain of the rod is kept up too harshly.

It is, while it lasts, as exciting a struggle as one can wish, but the fish soon becomes exhausted, and, lying on its side, permits the angler to draw it nearer and nearer, until finally the landing net is employed and the captive is lifted into the boat.

It is almost impossible to describe the beautiful iridescent coloration of the squeteague when it is first taken from the water. The green and purple and gold, added to and blended with the silver sheen of its armor, make it one of the handsomest of fish, but its bright colors soon fade, like those of all other species, and in a short time it becomes dull and unattractive.

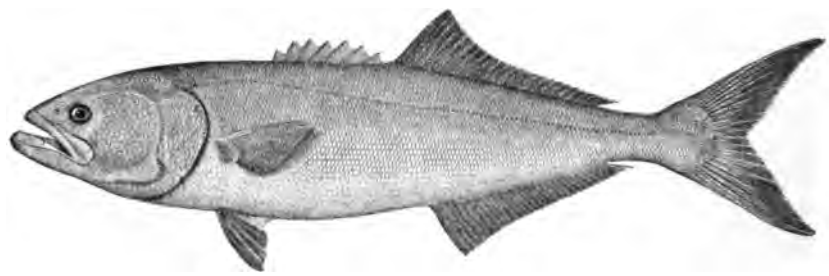
It is, like the bluefish, exceedingly voracious, the number of small fish that it destroys being very great; but it kills only for food, while the other continues its attacks long after its appetite is gratified. Owing to the

persistency with which it is trapped, the size of this species decreases every year. Formerly fish weighing from eight to ten pounds were common, but now those sizes are rare, and the average weight in the season's catch probably does not exceed two and a half pounds. As a table fish it is not regarded as highly by epicures as are some other species; but if cooked soon after being taken from the water it is far from unpalatable. The smaller specimens are excellent pan-fish, while the large ones are best when boiled, the meat being as firm as that of a salmon.

"The bluefish also sometimes furnishes pretty exciting sport," said the Doctor. "I used to be an enthusiastic follower of that voracious fish."

"Yes," I replied, "it is a voracious butcher."

The bluefish is, perhaps, one of the most widely distributed of all the migratory species that visit our shores. It has been found on the coast of Brazil and British Guiana, at the Canary islands, in the Mediterranean sea, and is a common market fish in Australia, and even at the Cape of Good Hope.



THE BLUEFISH.

On our coast it is a well-known species from Maine to Georgia, but north of Cape Cod it is less abundant than in more southern waters. It is a wandering fish, and one so capricious in its migrations that it will visit a given locality by myriads in one year, and perhaps not return to it for several succeeding seasons. In its spring migration it appears on the South Carolina coast in March, or early in April, and moves steadily northward, making its arrival in Vineyard sound at about the middle or last of May. Until the middle of June it is a bottom-feeding fish, but after that period and until it leaves in the fall for the south it is a higher moving species, and takes the troll or other bait near or at the surface.

Bluefishing then becomes one of the most attractive of recreations, and when the fish are abundant there is hardly any sport afforded by our waters that can compare in intensity of excitement with that found in the pursuit of this species.

The favorite method is to troll for the fish in a yacht or other sail-boat, using an imitation squid made of metal, bone, ivory, or mother-of-pearl,

which is attached to a very strong line, fifty or more yards in length. The squid is trailed astern the swiftly-moving yacht, which is sailed in different directions over the shoals, quartering the water as the trained pointer covers the ground, until the presence of bluefish is discovered by the practised eye of the skipper, the fact being established by a "slick" of oil, which escapes from the feeding fish, and makes a greasy scum on the surface of the water.

As soon as the "slick" is discovered, the course of the yacht is directed across it, and in a few minutes the bait is seized by the voracious fish, and the sport begins.

The fisherman, feeling a sharp tug and heavy pull at his line, excitedly begins to haul it in, but he soon finds that he has no puny antagonist to deal with, for the bluefish is one of the strongest and quickest-moving fish that swims.

It darts in every direction, dives like an arrow, and then leaps clear of the water, and while refusing to yield an inch, attempts in every way to shake the hook from its mouth.

The yacht, meanwhile, keeps on its course, the drag of the fish thereby being considerably increased, and the fisherman, to secure his prize, must be strong of hand and arm, and ready to meet all the feints and artifices of his antagonist with coolness and dexterity.

A pair of thick woolen gloves on the hands is a necessity, for the strain is such, when a large fish is hooked, that unless the hands are thus protected, the line is sure to cut them severely.

The battle continues sometimes for a number of minutes, but the fish at length is conquered, the line grows shorter and shorter, and finally, with a quick pull, the glistening prize is lifted out of the water and swung into the boat.

And what a beauty it is with its silvery sides and blue and green and leaden-colored back! A different fish it seems, indeed, from the specimens which are seen in the markets, fish that have been out of their native element for many days. But no time can now be spared for admiration, for the other lines are busily engaged, and the sport becomes intensely exciting. Aside from the use of the fly-rod, with which nothing can be compared, there is hardly any fishing that is more enjoyable than this.

The pure and invigorating sea-breeze, the swiftly-gliding boat, the rippling waves, the bright, unclouded sky, and a jolly companionship, all make an environment that is truly exhilarating, and added to this the sport of capturing one of the most gamy fish that swims, makes it a recreation almost unsurpassed.

The best trolling for bluefish in New England is now found in the neighborhood of Nantucket and Martha's Vineyard, but there are many

places in Buzzard's bay, in the sound, and along the south shore of Cape Cod, where good sport may generally be found.

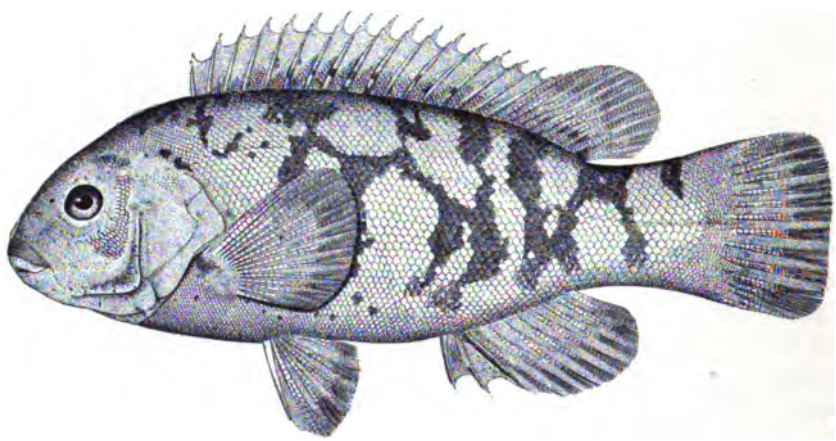
Still-fishing for bluefish is also followed to some extent, the angler anchoring his boat on the edge of a shoal, and using for bait a piece of menhaden or other small fish. With a strong rod good sport is often thus obtained, the fish making long and quick runs, and giving good play. The hook is attached to a fine wire leader, the ordinary gut snell being easily severed by the sharp teeth of the fish.

The bluefish is undoubtedly the most destructive species that swims in our waters; it kills, absolutely for the sake of killing. Rushing into a school of mackerel, or menhaden, it cuts a swath as wide as it can reach, its path being marked by a trail of blood and by the pieces of fish that it mangles and scatters around. The statement has been frequently made that it destroys more than twice its own weight, daily, of other fish, and it is so gluttonous that it eats to repletion, and then disgorges in order that it may again be filled. Its numbers seem to be decreasing in our waters.

This decrease may be attributed partially to the scarcity of food, but probably it is owing chiefly to the destructiveness of the pounds and weirs.

"I have also had great sport with the tautog," said the Judge; "it is often very gamy."

"Yes," I replied, "it is a species that in many localities is highly prized."



THE TAUTOG.

"In its ordinary habits it is a bottom fish; that is, it is not a free-swimming species like the bluefish or the striped bass, but generally makes its home amid the rocks and sea-grass in the bays and estuaries, and in seeking for food confines its operations to the small crustaceans and shell-fish upon which it almost entirely subsists. It spends the winter in the

deep water at sea, but early in May approaches the shore and remains at one of its favorite abiding-places through the summer. One of the interesting peculiarities of the tautog is its inability to endure very cold weather, there being many instances on record of its having frozen to death under the water, the inside of the fish becoming a lump of ice. So fatal is severe cold to it that thousands have been picked up on the shores of Noman's Land and Gay Head, the early winter having caught them before they began to move out to sea.

"Although in New England the tautog is most abundant south of Cape Cod, it is found in many localities along the shore from Cape Ann to Provincetown, and, unlike most other species, its numbers, instead of diminishing, seem to increase.

"I have had good tautog fishing from the rocky shore near the lighthouse at Eastern Point, Gloucester, have taken quite a number at Nahant, and have known of many being caught at Cohasset, and from the bridge that crosses the river between Quincy Point and Weymouth. At the first-named locality the fishing is done from the rocks, a strong, heavy rod being used, and the bait cast out into the surf and allowed to sink to the bottom. But at the Weymouth bridge, unless one fishes from a boat, a hand-line is necessary, it being almost impossible to save one of the heavy fish by lifting it with a rod. The best bait for the tautog is one of the small crabs that are found hiding beneath the rocks on the shore, little fellows an inch or so in diameter; they are obtained by turning the rocks over at low tide, and if they are kept in damp sea-weed they will live a long time; the hermit crab is also a capital bait, and if neither of these is to be obtained, a piece of quahaug, clam, lobster, or sand-worm will prove an acceptable lure.

"The large fish are usually sharp biters, and when hooked they give no little sport by making occasional quick runs of considerable length and resisting capture in a very plucky manner. The angler must always be on the alert against having his line carried under and entangled among the rocks, for the tautog is full of tricks, and hanging the line to a bowlder is one of them.

"On one occasion, at Eastern Point, while using two baits, I hooked a heavy fish, which darted at once beneath a rock and fastened the other hook securely. For several minutes it remained firmly fixed, although every possible effort was made to dislodge it, and the prospect seemed good for losing both fish and tackle, when it suddenly became released, and the discovery was then made that another large fish had taken the bait and was hooked. The rod was not a very stiff one, being only an eight-ounce bait rod, and as there was quite a little surf on, those fish for nearly a quarter of an hour could not be conquered.

"They were the hardest fighters imaginable, darting about almost like veritable bluefish and taking out the line until the reel was almost empty; the steady strain of the rod proved too much for them, however, and they were finally led into a quiet cove, where the landing net, in the hands of a looker-on, soon secured them. They weighed four and one-half and five pounds respectively, and were a handsome pair.

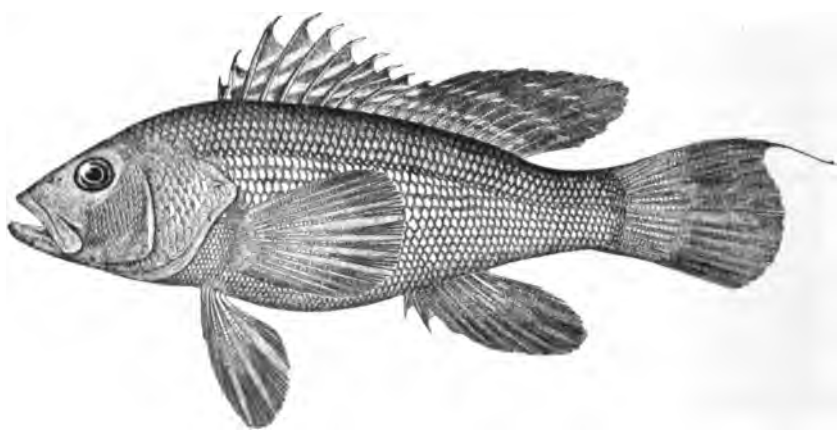
"The hook used in tautog fishing must be strong and sharp, and with a short bend, a No. B Virginia hook being the favorite with many; the swivel-sinker is the best, and it should not be heavier than is absolutely necessary to carry the bait down.

"The average weight of this species is now not over two and one-half pounds, although five or six-pound fish are taken, and larger specimens, even of ten or fifteen pounds' weight, are sometimes caught, though rarely in our waters. The tautog is considered a good table fish, its meat being laid in large, firm flakes, sweet and palatable; it is always eaten fresh and keeps in good condition longer than almost any other species. It is cooked in various ways, but in the opinion of many is best when boiled.

"It is one of the staple market fish of the Eastern States, being taken as far south as Delaware bay, where it is called the 'black fish.' On the New Jersey coast it is pretty abundant, the 'bank' fishermen capturing a great many when fishing for sea-bass."

"There is another species of salt-water fish," said the Judge, "which is somewhat a favorite with many anglers. I refer to the black or sea-bass which, although not very abundant in our Eastern waters, is a common species farther south."

"Yes, I replied, "its favorite habitat is south of Cape Cod, although a considerable number is taken every year off Nahant, about Cape Ann, and in the neighborhood of Scituate, Cohasset, and Plymouth."



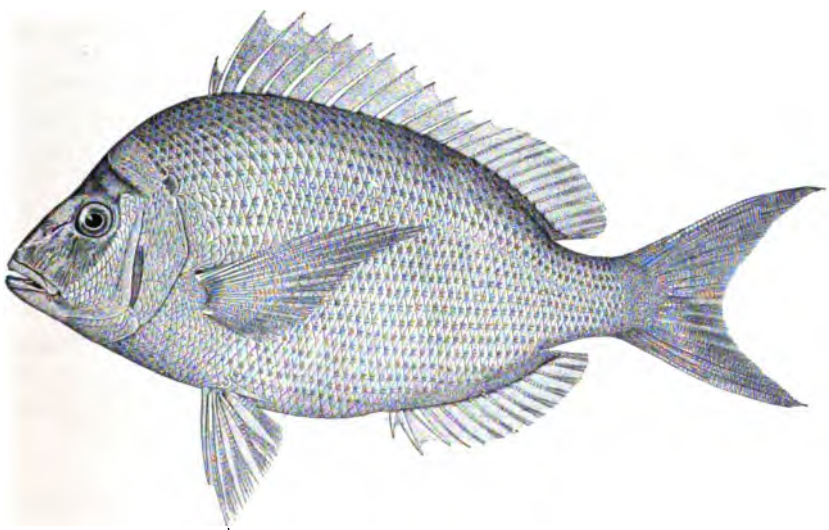
THE BLACK SEA-BASS.

It is strictly a sea-fish, being very rarely found in brackish waters, and it generally locates for the summer on the rocky reefs, where there are mussel-beds and growths of kelp and sea-weed, such as abound in Vineyard sound and Buzzard's bay. It makes its first appearance at Martha's Vineyard early in May and remains about our shores until late in the autumn, when it returns to the deep water for the winter. It is a bottom feeder, and a voracious one, but is not as destructive to other fish as are the squeteague and bluefish, its food consisting chiefly of crustaceans and small shell-fish.

It is a quick, greedy biter, and will accept almost any bait, a piece of quahaug, clam, or a strip of menhaden being apparently as attractive as the most dainty bit of sheddar-crab, or lobster.

It is generally taken with a hand-line, but when a rod is used the angler finds, if a large fish is hooked and played, considerable sport before it is landed; the rod, however, must be a stout one, for the fish is a heavy puller, hugging down to the bottom in a most dogged manner and tugging away from the boat with a strength that is truly astonishing. It does not, however, make quick runs like those of the squeteague, and it never leaps above the surface.

All along the New Jersey shore it is quite a favorite species, both with rod and hand-line fishermen, and all sorts of crafts are utilized to carry the anglers out to the "banks" where the bass abound. In the height of the season it is not an uncommon occurrence to see fifty or more yachts or other boats lying at anchor at some favorite locality, and even steamers



THE SCUP, OR SCUPPAUG.

TAUTOG FISHING.

are run from New York and Philadelphia for the accommodation of those who wish to participate in the recreation of "bassing."

On several occasions, in the summer of 1895, I joined one of the fishing parties on the Philadelphia steamer, the trip being down the Delaware river and bay and out to the "banks," about twelve miles east of the breakwater, and I found the excursion enjoyable in every way.

On arriving at the desired locality the anchor was dropped, the hooks baited and cast out into the water from the main deck, and for several hours the anglers had all the sport they could desire. The bass were quite large, many of them weighing three or four pounds, and as they took the bait in the most lively manner, the sixty or seventy fishermen on the boat made it quite an exciting occasion.

In addition to the bass, quite a number of deep-sea flounders were taken, and a great many good-sized scup, fish fully twice as large as those that are caught in Buzzard's bay, were also added to the catch.

I was a little surprised to see this familiar species so far out at sea, but learned that it is abundant all along the coast, even as far south as Georgia.

In the opinion of many epicures, the sea-bass is the best chowder-fish that our waters afford. Its meat is dryer than that of the cod, lies in firm, compact flakes, and is generally of a fine flavor.

It is a standard market fish in New York and Philadelphia, but is not so commonly sold in Boston, although if its good qualities were better known, it would undoubtedly become as great a favorite as it is in other localities.

"It is growing late," said the Judge, "and I, for one, begin to feel sleepy. What do you say, gentlemen, shall we retire"?

"I 'm willing," replied the Doctor; "I think I can go to sleep very quickly, too."

I stepped outside the tent, as usual, to see that everything was right for the night. The fire had burned out, and but a faint haze was ascending from the smoker. It was a lovely night; the moon was shining brightly, and the stars gemmed the entire canopy. A slight fog hung over the surface of the lake, which shut out a view of the forest on the other side, but I knew that this did not presage a storm. I regaled myself with a short smoke, and then returning to the tent, soon joined my companions in sleep.

Photo. by R. O. Harding.

FOUR GOOD CANDIDATES FOR THE SMOKER.

CHAPTER VI.

SUNDAY IN CAMP. — A TONIC FOR DELICATE WOMEN. — FRESH-WATER PEARL MUSSELS. — THE MUSKRAT AND ITS HABITS. — A CHANCE FOR A NEW INDUSTRY. — THE NORTHERN HARE. — ALL ABOUT RABBITS. — THE GRAY SQUIRREL AND ITS HAUNTS AND PECULIARITIES. — SNOW AS A WARM COUNTERPANE. — WE MOVE DOWN THE RIVER. — AN EXCITING PASSAGE OF THE "WHITE RAPIDS." — A FIGHT WITH A SALMON. — PREPARATIONS FOR THE JOURNEY HOME. — ADIEU.

QUIETLY I arose on the following morning and left the tent. The morning sun was obscured by a thick fog, but the gossamers, which glistened in every direction, indicated that the day was to be fair. We had breakfast later than usual, for it was Sunday, and we had, in former years, adopted the rule that no fishing should be done on that day.

The forenoon was passed in overhauling tackle and fly-books, and in tidying up things generally.

After dinner the Judge regaled himself with a book, and the Doctor and I took one of the canoes for a paddle around the lake. Of course we proceeded leisurely, for we were out simply for recreation and for a pleasant occupation of the time. The sun was shining brightly and a gentle breeze swept a few delicately-tinted clouds across the sky.

"This is a grand day, Doc.," said I, "and we are enjoying ourselves hugely. I never feel such pleasure elsewhere as I do in these outings."

"Yes," he replied, "it is a great relief to get away in the woods. I always advise my patients to take all the out-door life possible and as rough as their systems can stand; and it is surprising, indeed, to see how delicate, frail women tone up in a few weeks' tent life. I tell them to 'cast physic to the dogs,' and pack up a lot of old clothes and 'rough it.' Those who take my advice soon learn to handle a canoe, cast a fly, and even become expert with the rifle and fowling-piece. Some foolish women turn up their noses at such recreations, but they have to pay, later, for their indifference to the claims their bodies advance.

"Pale, lymphatic, languid, helpless women are not fit to raise families; they need stamina, and they can best obtain it in a life such as we are enjoying. But what a great number of clam-shells there are on this sandy

point"! As he spoke he pointed to a little beach on a point that made out into the lake close to our canoe.

"Yes," I replied, "they are the shells of one of the species of Unio; the muskrats have dug them out of their aquatic homes and have eaten them here."

"These fresh-water clams," continued the Doctor, as the canoe grounded on the beach and we stepped ashore, "are much hunted in some localities for the pearls they contain."

"Yes," I replied, "I have often opened them for pearls, and have, in fact, found a few small ones, but none of any value. As you see, they resemble salt-water mussels somewhat in shape, but are handsomer in appearance, and they sometimes grow to a considerable size, specimens of five or six inches in length being occasionally found. A small proportion of them contain pearls, and once in awhile a valuable one is taken."

Many instances of the discovery of these have been recorded in New England and the provinces, and amateur pearl-hunters have sometimes made very satisfactory incomes.

In some of the southern rivers, also, the mussels are very abundant, particularly the Cumberland river in Kentucky, where they are systematically sought for by professional hunters, and specimens worth from $75 to $100 each are often obtained.

In one instance a pearl was found in that river which sold for the handsome sum of $500, but of course such valuable gems as that are rare.

In searching for pearls, the hunter secures the mussels by wading on the bars and drawing them with a rake or other implement from their sandy beds.

The shells are pried open carefully with a stick, cut something like an old-fashioned clothespin, and the inside is explored with the finger to ascertain if any pearls are present. They are found close to the mouth of the mussel between the flesh and the shell; as soon as the examination is made, the oyster is returned to its native element, where it remains until it is again raked out and examined.

Most of the pearls that are found are worthless, on account of their small size, irregular form or poor color, but there are great numbers secured that are marketable, varying in dimensions from the size of a pinhead to that of a pea, and bringing from fifty cents to as many dollars apiece.

The pearl is produced in the oyster and the mussel by the introduction of some foreign substance, such as a grain of sand, a fragment of gravel, or any other small object that causes irritation to the flesh of the animal.

As long as the annoying presence of this object is felt, the mussel begins to deposit a covering of nacre, or mother-of-pearl, upon it, in order to render it smooth and consequently less irritating to its delicate flesh, and

as this deposit is continued even after the intruding grain is covered, the pearl in time attains a considerable size.

The Chinese have long been acquainted with this habit in the pearl oysters, and have taken advantage of it by introducing into them beads and all kinds of small, grotesque objects, which are soon transformed into beautiful and valuable pearls.

Of course, if this artificial culture is accomplished elsewhere, it may be done here, and there is no reason why many of our brooks and ponds may not be utilized in this direction.

The only requisites are an unfailing supply of pure water, a clean, sandy or gravelly bottom, and careful handling. As it is essential that the pearls should be of good shape, it is necessary that the objects introduced should be symmetrical, and nothing is better for this purpose than small glass or agate beads. The time required for the development of good sized marketable pearls would be from three to five years, according to the size of the unio. There is no reason why these clams may not be made profitable, in fact there is a chance for the establishment of a new industry. But very little capital would be needed, and the clams could be kept as pearl-growers for an indefinite length of time.

On almost every farm there are swamp and meadow lands through which brooks of greater or less size flow the entire year. These can all be deepened, and their bottoms covered to the depth of five or six inches with sand or gravel, and when this is done they will furnish acceptable homes for the fresh-water mussels. A supply of these can be found often in abundance upon the sandy bars of rivers and ponds, and as they readily bear transplantation there would be but little difficulty in obtaining a stock of them as large as may be desired.

"But see"! exclaimed the Doctor, pointing to a small animal that was swimming near the shore, "there is one of the clam destroyers, a veritable muskrat."

"Yes," said I, "old *Fiber zibethicus* is a great clam hunter; I have found hundreds of such beds as these all over the country."

The muskrat is almost entirely aquatic in its habits, seldom venturing far from the water. Its burrow, in summer, is usually in the banks of a stream or pond, and it has an opening beneath to the water, through which it always retreats at the first sign of danger; in winter it builds a large nest of grass, sedge, and the leaves and stalks of the water-lily. This nest is not open on any side, the entrance being from beneath, from the water. Its food consists principally of the roots and herbage of water plants, but it is sometimes omnivorous. As before stated, the numbers of clams, or more properly unios, it destroys is very great. The young, from three to six or seven, are born usually in the spring, but I have found

them in a nest in February. Sometimes the ice beneath and around their home becomes so thick that it is impossible for them to effect an egress, when the weakest furnish food for the others. Occasionally a piratical mink enters their home, in which event the whole family is sacrificed.

In a short time we re-embarked in the canoe and continued on our course around the lake.

"I noticed many signs of rabbits beneath the bushes on the edge of the shore," said the Doctor; "they must be very abundant in this neighborhood."

"Yes," I responded, "but the species that exists here is not the rabbit; it is the northern hare, a considerably larger animal than the common rabbit of the three southern New England States. It is more retiring than the other, preferring heavily-wooded districts, and very seldom venturing into the fields. I have found them in greater abundance in Nova Scotia than elsewhere and have seen large wagon loads of them carried to market. It is much pursued by sportsmen. On being hunted by dogs, it often doubles on its tracks and thus sometimes eludes its pursuers. It does not take refuge in holes in the earth as does the common rabbit, on being hard pressed, but depends entirely on its fleetness and strength and the thickness of the covert. Its flesh is usually very palatable, but in winter, when it feeds on spruce and hemlock twigs, it is far from attractive. In the daytime the hare does not move around much, but remains concealed beneath a clump of bushes or in a bunch of brush; this is called its *form*. It has almost innumerable enemies, and were it not prolific it would soon be exterminated. The young are usually five or six in number, and two litters are born in a year."

"The common rabbit of Massachusetts and more southern States does not come so far north as this, then," said the Doctor.

"No; in many sections in that State, and south of it, that species is very plentiful, and it is now hunted a good deal by packs of beagles. In localities where it is found there is hardly a patch of woods, of an acre or two in extent, that does not contain some of these rabbits. It is chiefly nocturnal in its habits, lying concealed during the day in its *form* beneath a clump of bushes; when pursued, it soon takes refuge beneath a rock, or in a hole in the ground or ledge. It builds a nest of grass, and pulls fur from its body to line it with; in this the young are born, sometimes seven or eight at a litter. The young leave the parent when quite small,— sometimes when but two or three weeks old.

"The gray rabbit often visits the fields and orchards and does considerable mischief in the vegetable garden, eating the tender plants of the pease, beans, cabbages, and turnips. When startled it always stops and listens for a moment, sometimes regarding its visitor curiously, until a movement from him frightens it, when with a quick, leaping run it disappears. Its flesh is superior to that of the hare on the table."

"I never cared much for either species, for food," said the Doctor; "they do not compare with the gray squirrel in this respect. I used to shoot a good many in my younger days, and I remember they used to be very palatable in a fricassee, or squirrel pie. That is another species which is common in many parts of New England but does not come here, I believe."

"No, its habitat is chiefly confined to forests of nut-bearing trees. As you know, it is one of the most beautiful and graceful of the inhabitants of our forests, in which it generally makes its home, hardly ever venturing from them, unless occasionally, when the Indian corn is ripe, it enters the fields to add a little to its winter store of nuts; the amount which it pilfers could hardly be missed, however, unless the field should happen to be in or near the woods."

The gray squirrel prefers forests of chestnuts and oaks, in which its winter store can be readily collected. The first heavy frost is the signal for this work to commence, and the dropping of the chestnuts and acorns, which the frost has loosened, accompanied by the rustling of the squirrel through the newly-fallen leaves, as it gathers the nuts together and carefully deposits them in hollow trees and crevices of rocks, or buries them in some secure place beneath the leaves, are the sounds most intimately connected with our woods in the autumn.

The squirrel is much hunted by sportsmen, who generally use a small gauge rifle, and he is a fairly good shot, indeed, who secures a bag in a day's outing; the little rodent's activity, the rapidity with which it scampers up and down the trees and leaps from one tree-top to another, and the cunning with which it hides from the gunner, dodging to the opposite side of the tree from him, renders the sport highly exciting.

The summer nest is built in a tall tree, at the junction of several limbs with the trunk. It is composed of sticks and leaves, and is lined with soft grass and ferns; in this the young are reared, and live with the female till they are old enough to shift for themselves. At the approach of winter, some hollow in a tree is selected, sometimes the abandoned nest of a woodpecker, in which a warm nest is built, composed of grass and soft leaves; this is the winter home of usually the whole family. In early spring the young are driven off by the old ones, who soon build the summer nest, in which to rear another family. The young, after being driven off, soon pair, and in their turn become heads of families.

The habits of this animal are very interesting. You may be walking through the woods; shortly you hear what you at first think to be the barking of a small dog; on listening you discover your mistake; the abrupt notes, *qua-qua*, with chattering gutteral additions, proceed from the tall tree a few rods from you; you cautiously steal on tiptoe to the foot of the tree, but do not see the animal, even after looking carefully on every side. You know the little fellow is there, for he could not possibly have got out of

the tree unless you had seen him. Now if you go close to the tree and step quickly to the other side you will see him whisk himself suddenly to the opposite side from you, where he is now closely hugging the tree and perfectly motionless; your interest has now become awakened, you are curious to see more of him; but to do so you must retire a few rods and remain perfectly still. You had better take a comfortable seat, for he will not move while you are near the tree. Presently, you see his head with its bright, lively eyes slowly moving around to the side where you are; this is the first reconnoitering movement. If you remain perfectly still he will soon take his position on a limb where, jerking his tail and flaunting it in conscious security, he gives vent to his satisfaction at your removal in a series of chattering barks which are answered, perhaps, by other squirrels that you had no thought were in the neighborhood; soon one of them, with a challenging bark or chatter, chases another, and shortly three or four of them are scampering about, running through the fallen leaves, and up and down the trees in high sport; presently one of them in escaping from the others comes suddenly near you; with a shrill whistle of astonishment he scampers up the nearest tree and is soon as effectually concealed as all the others were the instant he gave the alarm. You may as well retire now, for you will see nothing more of these; as long as you remain near they will not budge a foot.

"It is a matter of common observation among sportsmen," continued the Doctor, "that a large proportion of both the male gray and red squirrels are castrated. It has been supposed that this has been done from jealousy; have you ever given the matter any investigation"?

"Oh, yes," I replied; "the emasculation is done by the larva of a fly, (*Cuterebra emasculator*). The egg is probably laid in the same manner as that of the bot-fly of the horse, and the grub taking up its abode in the scrotum, consumes the testicles. This fact was discovered by Dr. Asa Fitch, the late entomologist to the New York State Agricultural Society. There is no doubt that male squirrels attack each other when afflicted with this parasite, for the act has been witnessed many times." *

"But here we are at camp again, Doctor, and the old smoker is at work, if it is Sunday."

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* Dr. Fitch, in treating of this matter, says: —

"I am therefore led to believe that these animals do attack each other in the manner that has been stated; not, however, for the purpose of emasculating their comrades, as has been supposed, but for the purpose of coming at and destroying these bot-grubs, the enemies of their race. We know the terror which some of these bot-flies give to the animals on which they are parasites, and the efforts which animals make to escape from them. The squirrel, also, is undoubtedly conscious that this insect is his greatest foe; he probably has sufficient intelligence to be aware that from the grub which is this year tormenting one of his unfortunate comrades, will come a descendant which next year may afflict him or some of his progeny in the

We found the Judge had thrown aside his book and was busily engaged in preparing one of the appetizing suppers for which he was famous. It is not necessary here to give the *menu* in detail; suffice it to say it was enjoyable from start to finish, and we lingered at our primitive table until the sun sank below the horizon.

A portion of the evening was devoted to arranging and packing some of our belongings, for on the next morning we were to begin the descent of the river.

"I regret leaving this delightful spot," said the Judge, "for some of the pleasantest hours of my life have been passed here. Of course we cannot relapse into barbarism, as the Doctor said the other evening, but to renew the restraints of civilization, the social conventionalities and insincerities is always distasteful to me."

"I feel as you do, Judge," responded the Doctor, "but it is because we love Nature more, and man's society less; we love her many beauties, her changes, and always entrancing moods, and hate to part with them; but we would not fancy becoming hermits in these solitudes; we are not constituted in that way. We like the companionship of congenial spirits, and in these glorious summer days in which the breezes are redolent of the odors of thousands of wild flowers, and of the balsam, and fir and pine, days in which we have no other care or anxieties than those of the angler, we are satisfied to remain in these conditions indefinitely; but when the wintry blasts howl through the trees, and the lakes and rivers are covered with ice and the forest is filled with snow, ah, then we would feel like returning to the comforts, the luxuries of civilized life."

"What you say, Doc., is true in the abstract," said I, "but I have passed many weeks in the woods in the winter, and the memories of them which are often awakened are among the pleasantest of my life. We do not like the cold, we do not like discomfort, we do not like the snow when we have to plod through it for many weary miles; but still one may find pleasure even in such environment. It is never so cold but that one can keep warm with a rousing camp fire and thick blankets; and the snow, in addition to its many beauties in the woods, its fleecy mantle clothing the trees with fairy-like and sometimes exquisite vestments, often affords a refuge and shelter from the icy blasts which could not otherwise be obtained." †

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same frightful manner. Hence his avidity to destroy the wretch, and thus avert the impending calamity. Future observations must determine whether this conjecture is correct. We fervently hope that the sportsman or other person who next witnesses a squirrel overpowered by its fellows in the manner stated, will kill that squirrel, and let the world know whether he does or does not find in it one of these grubs. If a grub is discovered, no doubt can remain as to the object of the other squirrels in making the attack which they do."

† The following extract from an article in the Boston *Herald* is very interesting in this connection. — E. A. S.

"I confess to a dislike for snow," said the Judge; "I used to be as great an enthusiast as any one, but the cold weather subdues my ardor tremendously now-a-days. If it could always be summer I should ever be contented in the woods, but when the icy blasts of winter, that Doc. refers to, are hustling through the pines I am perfectly satisfied with my club at home and the social amenities of urban life. Such fearful privations as moose and caribou hunters sometimes pass through in pursuit of their favorite quarry are almost incomprehensible to me."

"I dare say some of them wonder that salmon fishermen are willing to undergo the hardships they are sometimes called upon to endure," remarked the Doctor; "they must commiserate us when black flies, midges and mosquitoes are rampant; it is fortunate that men have varied tastes and proclivities, otherwise we should be badly jostled."

"Yes, Doctor," I added; "if all who 'go a-fishing' were to change their tastes and take up salmon fishing, we would be jostled, indeed. Fortunately, a large proportion of anglers are satisfied with trout fishing, and they obtain from it most delightful sport. What is there more beautiful

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"We are told by experienced travellers in northern climes, that nobody need be frozen to death in the snow. There is no need of a constitution especially organized or sedulously acclimatized to the snow; the benighted traveler who loses himself in the white expanse, with the heavy flakes falling thickly around him, need not possess the hardihood of the Highlander, who cares for no covering save his plaid, and looks upon a snow pillow as an effeminate luxury. He who finds himself in such a position, and knows how to avail himself of the means around him, will welcome every flake that falls, and instead of looking upon the snow as an enemy, whose white arms are ready to inclose him in a fatal embrace, he hails the soft masses as a means of affording him warmth and safety.

"Choosing some spot where the snow lies deepest, such as the side of a bank or a tree or a large stone, he scoops out with his hands a hollow in which he can lie, and wherein he is sheltered from the freezing blasts that scud over the land. Wrapping himself in his garments, he burrows his way as deeply as he can, and then lies quietly, allowing the snow to fall upon him unheeded. The extemporized cell in which he reclines soon begins to show its virtues. The substance in which it is hollowed is a very imperfect conductor of heat, so that the traveler finds that the caloric exhaled from his body is no longer swept off by the wind, but is conserved around him, and restores warmth and sensation to his limbs. The hollow enlarges slightly as the body becomes warm, and allows its temporary inhabitant to sink deeper into the snow, while the fast-falling flakes rapidly cover him, and obliterate the traces of his presence.

"There is no fear that he should be stifled for want of air, for the warmth of his breath always keeps a small passage open, and the snow, instead of becoming a thick, uniform sheet of white substance, is broken by a little hole, round which is collected a mass of glittering hoarfrost, caused by the congelation of the breath. There is no fear now of perishing by frost, for the snow-cell is rather too hot than too cold, and the traveler can sleep as warmly, if not as composedly, as in his bed at home."

Photo. by N. C. Nash.

A HUNTER'S CAMP IN WINTER.

than a highly-colored trout? There is hardly a fish that will compare with it in grace and elegance. The devotees of trout fishing are all enthusiasts, and their name is legion."

"Yes, trout fishing, when followed with the love the true angler feels, is an enjoyable sport," replied the Doctor, "but there are more enthusiastic black-bass fishermen than of any other fish."

"Yes," added the Judge, "and many other of the fresh-water game fishes are followed with equal zest. The pickerel, for instance, is a fish that many delight in catching."

"Yes, Judge," said I, "the pickerel has been well called 'the poor man's game fish'; it is one of the most generally distributed of all the species, will thrive in almost any fresh water, and in addition to its other qualities, it is far from unattractive on the table, particularly when it is taken in the spring, when the water is pure and cold."

"There are several species of pickerel," remarked the Doctor, "and they vary greatly in general appearance."

"Yes," I added, "there are several species, but the fish that is usually called the pickerel is really a pike, which sometimes attains a weight of fifty pounds, while the pickerel proper rarely exceeds five pounds."

"The mascalonge grows much larger," said the Doctor.

"Yes," I replied, "it is often called a big pickerel or pike, but it is quite another fish. Although it has the same number of fins, and they are placed in the same positions as those on the pike, it may readily be identified by the scales on the upper part of the cheeks and on the gill-covers."

"The old Indian name of the fish, *maskanonja*, which means 'long snout'" said the Judge, "is very similar to that given it by the Canadians, the *masque-longue*, or 'long visage.' It has almost the same habits as those of the common pickerel, but the coloration differs very much."

"Yes," I replied, "but the coloration of pickerel varies with the waters in which the fish live; in fact, coloration is generally a poor guide for identification of any of the fishes; we have all seen how trout vary in color in different localities."

The mascalonge has many of the habits of the pickerel, but is a somewhat more symmetrical fish: it is also much better in an epicurean point of view, its meat being white and compact, and free from all taints of mud and decaying vegetation, which the pickerel sometimes has. It is one of the most voracious of fish, and the destruction it wages among smaller species is terrible. It attains a very great size, specimens having been taken of nearly six feet in length, and weighing from sixty to seventy pounds.

Like the pike and pickerel, the mascalonge is taken with a trolling spoon, or other moving bait. It is a strong, fierce fighter, differing in this respect from the pickerel, which usually fights hardest after it is safely landed.

The pickerel, and by this I mean the pike also, is one of the most destructive of fishes: in fact, by many anglers it is termed "the fresh-water shark." It is of rapid growth if it has an abundance of food, but it is believed by many to be an unprofitable species to raise, because of the fact that it destroys more other food-fishes than it is worth.*

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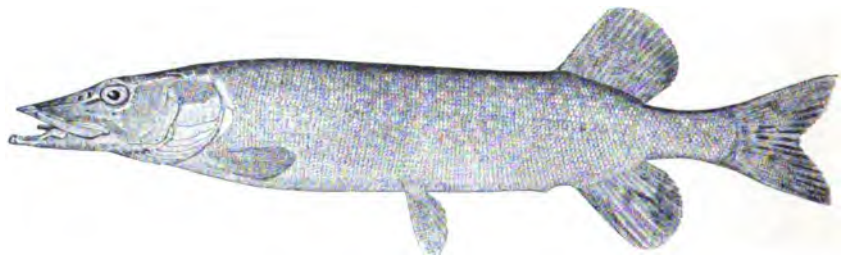
* M. Carbonnier, in a communication to the Imperial Society of Acclimatization in France, in commenting on this says:

"In the course of a year the growth of the pike is very rapid, especially if living in a large extent of water; the female attains the length of from eleven to sixteen inches, and several of them are fit for reproduction, whereas the males are not adult and in milt till the second year.

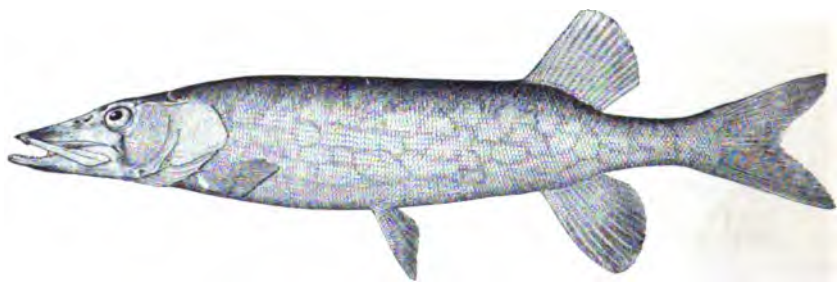
"About its fourth or fifth year the pike sometimes attains the length of nearly four feet, very rarely more, and at this age, when confined in ponds without communication with large water-courses, it is in the perfection of its existence. In proportion to its rapid growth is its premature old age; it then becomes mouldy, often blind, and dies very young.

"It is known that ponds, intelligently cultivated, are regularly fished every four or five years. It is then not rare to find choice specimens, remarkable either for size or shape, which are reserved for a subsequent

MASCALONGE.



PIKE.



PICKEREL.

This statement of M. Carbonnier is interesting in several respects. It clearly shows that nothing is gained by rearing this voracious species, unless when we desire to rid a piece of water of some very worthless kind of fish. Its voracity will then be of service.

I have seen pike so abundant in some of the small, muddy ponds which empty into the Schoodic lakes in Maine, that I could, if I so desired, sink a canoe with them in a couple of hours. Huge monsters they were, two or three feet in length and with mouths opening at least nine inches. The pickerel is so destructive of trout that it will exterminate them in a few years in a pond or lake in which the two occur.

Lake Umbagog, in Maine, was formerly a famous trout lake, one of the very best in the Rangeley system; but a number of years ago pickerel were in some way introduced into it and the trout have now entirely disappeared.

"I used in my boyhood days, and even later, to have great sport at pickerel fishing through the ice," said the Judge. "We chose a bright, warm day when the mercury marked above thirty degrees, and after cutting two dozen or more holes through the ice, we baited hooks with living minnows, or shiners, and dropped them into the holes. The lines to which they were attached had pieces of red flannel tied to them, and they were held up over the holes by twigs or switches which were stuck into the ice. When a fish was hooked the flag dropped, thus giving a signal to the eager anglers. It seems to me now like pretty tame sport, but we enjoyed it in those days."

"Yes, said I, "we have all fished more or less through the ice in our younger days and how intensely we enjoyed it."

"I remember, said the Doctor, "that in addition to pickerel we used to catch the handsome yellow perch, sometimes a pound or more in weight."

"It is a handsome fish, as you say, Doctor," said the Judge, "but that is about its only merit. The white perch is vastly better as a 'pan-fish.'"

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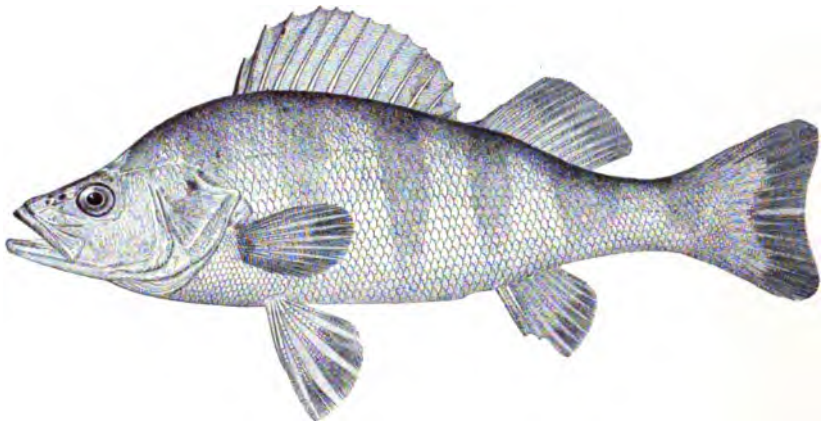
fishing. Well, most proprietors of waters agree that at this second fishing they have never found these large fish which were reserved.

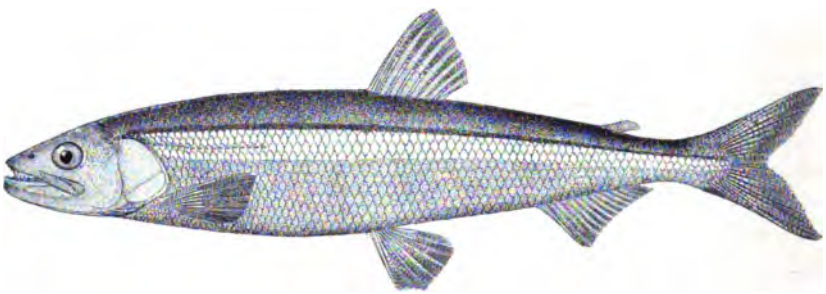
"I repeat it, in ponds the pike seldom lives ten years; it could not, indeed, be otherwise with a voracious fish, which only cares for living prey.

"When the water is muddy the pike becomes lean and loses a third of its weight, owing to its inability to see its prey. Of all our fishes the pike is the most gifted in the power of vision. Poised, motionless, almost on the surface of the water, it sees the slightest movement at a distance of fifteen or eighteen feet, and darts upon it like an arrow.

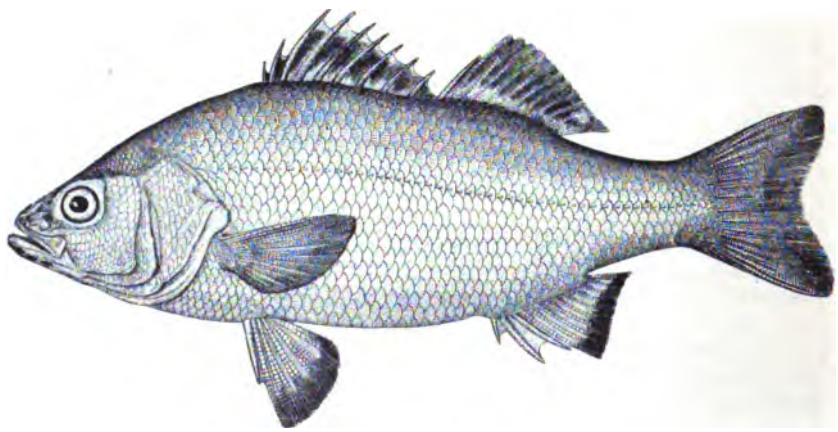
"A pike of twenty-two pounds, in order to attain that weight, must, as I have calculated, have eaten 164 pounds of other fish, which would have been enough to feed two hundred persons for one day. At the Paris market, the average price of pike is 9d. per pound, so that a twenty-two pound pike is worth about 16s.; but as it has eaten at least the value of £4 in fish, the proprietor of the pond has sustained a loss of £3, 3s."



YELLOW PERCH.



SMELT.



WHITE PERCH.

"It is, Judge, I added; "I have taken the white perch in the Schoodic lakes that weighed over three pounds, and on a fly at that. Like you I regard the white perch as one of the finest of pan-fish, particularly when caught in tidal waters. It is abundant almost everywhere in New England and in many localities in the Provinces."

"The smelt is the most delicious of all the small tide-water fish," said the Doctor, "and one can at times obtain pretty good sport with it. I have seen specimens in the bays of Prince Edward island that would weigh nearly, if not quite a pound. In the spawning time in June, in Nova Scotia and New Brunswick, the streams are literally packed with them; in fact, they are so abundant that I have seen hundreds of barrels of them caught in seines and used for fertilizing the soil."

"What a shame"! exclaimed the Judge; "a *bonne bouche* like the smelt should be used only as food, and when dressed *à la tartare* it is a tit-bit of the greatest excellence."

Our conversation now passed into a variety of topics which would have no attraction for the average reader and I will not, therefore, make a record of it here. Bedtime at length arrived, and in a short time my companions were asleep.

I was wakeful, for our contemplated move down the river meant the near return to the worry and anxiety of city life. I knew it was inevitable, but it was far from pleasant to me to contemplate. My outings are my chief, if not my only recreation, and naturally I dislike to curtail them in the slightest measure. To be sure, if we were always on pleasure bent we would soon become selfish, worthless drones, but I confess that I should like the opportunity, for once, to linger in the woods until I grow weary of them. I have never yet, in my many years' experience, longed to get away from them.

On the following morning we arose with the sun, and after disposing of a generous breakfast, the last to be eaten at our home-like camp, we began to move our baggage around by the carry road to the pool below the falls. Our canoes would be very heavily loaded, and a nice adjustment of our freight was necessary.

As we had several comfortable log camps on the stream the tents were not needed, and were left until the guides could return and remove them. In the first canoe were the Judge, Hiram, and William, and in the other were the Doctor, François, and myself. The Doctor, who was an expert with the setting-pole, took the bow, and I the middle of the canoe.

I love to use the paddle, and in earlier days plied the setting-pole with a good degree of skill; but increasing years and avoirdupois have unfitted me for work among the rapids, and I yield the pole to more active and quicker-sighted men.

Our passage down the river was marked by no incident of special

note. We had ten or a dozen pools at our disposal, which in our three days on the stream gave us all the fish we desired; in fact, our catch was superior, both in weight and numbers, to that of any previous year.

On the morning of our fourth day we reached the head of our last stretch of rapids below which was the only large pool left for our fishing. It was decided that our canoe should take the lead, and with the Doctor in the bow and François in the stern we passed over the crest at the head of the rapids. The canoe, at first impelled by a push of the setting-poles, soon moved more quickly as it felt the increasing rapidity of the current, and in a very short time the roar of the "White Rapids" was heard and soon we were being tossed about by the seething water. What is there more exhilarating than a slide in "a birch" down a steep incline of rushing, angry water? The frail canoe is borne along like an egg-shell by the wild current, which dashes between and over threatening bowlders and treacherous ledges, and if it were not guided by skilled hands it would be quickly dashed to pieces, and its occupants would have but a slim chance for their lives. Ours was a dizzying dash while it lasted, and we had one or two narrow escapes, but the Doctor and François, handling their poles with the greatest dexterity, proved themselves masters of the situation, and safely steered us through the dangerous passage.

"By Jove," exclaimed the Doctor, "I don't remember ever crowding into the same length of time quite so much excitement as I felt during that wild rush."

"Yes," I replied, "it was a wild run as you say, over a mile in length and all done in a very few minutes."

"Over a mile! Why, it seemed not a fraction of that distance, but we fairly flew a portion of the time."

"Yes, we did seem to fly, eh, François"? I said to the guide.

François replied with a grin; it was an old story with him.

At the lower end of these rapids there was a long stretch of comparatively smooth water, and the canoe glided along, impelled by the paddle of the guide.

Following this was another series of rapids, which we ran with safety, and these were followed by many small pools, which looked as if they might be inhabited, but, although I cast my flies faithfully over every promising spot, I failed to rise a fish.

At last we reached our destination, the head of "Big pool," the largest and most famous of any on the river; in length perhaps fifteen rods, and in width seven or eight. It was shut in on both sides by steep, high cliffs of brown sandstone which were surmounted by stunted pines and spruce trees.

Rising as these cliffs did abruptly from the river there was no chance to fish the pool except from a point near the inlet, or from a canoe. Land-

ing on the pebbly beach I made preparations for work. My friend, whose rod was packed, said he would not bother to set it up and that I was welcome to the pool while he did a little botanizing. Accompanied by François, I took my position on the point which jutted out into the pool and began casting. What a perfect day for fishing it was! A soft breeze gently rippled the surface of the water; golden and roseate clouds occasionally flitted across the sky, casting their shadows upon the pool in the manner that fishermen so much desire. The songs of birds in near-by thickets and the tattoo of a "drummer" partridge lent their charms to the scene and nothing seemed left to wish for except the rising and capture of a fish.

"Water very clear," said François, after I had for a number of minutes unsuccessfully cast my line over every foot of water within my reach; "why not try a smaller and darker fly"?

"I believe I will try it," I replied. "I fancied that my 'Durham Ranger' might be too bright; perhaps a medium-sized 'Fairy' will suit the fish better." A change of flies was soon effected and again I made my offerings but they met with no response.

"Queer," said François; "must be salmon in the pool somewhere; s'pose we try um in the canoe."

"Very good," I replied, "we will make the attempt, but perhaps the fish have all run up."

"No; plenty fish here," answered the guide, "must find um."

"All right, my boy, if they are here we 'll find them if flies will move them."

The canoe was placed on the water and we embarked, the guide taking his position in the stern, while I stood near the bow. Slowly we moved from the shore, and silently was the paddle plied while I carefully covered again and again all the water within my reach. Suddenly François gave a quick turn of his paddle which changed the course of the canoe and retarded its movement, exclaiming as he did so, "Just missed him, sir; good salmon came to your fly."

"Is it possible"? I answered, almost doubtingly. "I did not see him."

"Yes, he there all right," replied the guide. "We catch him bime-bye."

After resting the pool a few minutes, the canoe was again moved to the favored spot. I presented my lure, and at the third cast a grayish form moved upwards towards the fly, quickly seized it and the fish was hooked.

For a few seconds, apparently disdaining the frail tie that held him, a line but little thicker than a horse hair, the salmon sank to the bottom where he remained motionless; but, feeling the strain as I lifted my rod, he became conscious of danger, and with a wild rush he darted away, taking out a good fifty yards of my line.

After his first great run my fish quieted down, but soon becoming uneasy he dashed away again, and now began a battle that gave me all I could attend to for a quarter of an hour, at least. It seemed almost as if he were in a dozen places in the pool simultaneously. Now here, — in an instant, dozens of yards away; sometimes at the bottom of the river, as often leaping three or four feet into the air, and thus he kept up a rattling pace. He was a bright, fresh-run fish, of great strength and activity.

At length, settling down, the salmon became for a time almost stationary, moving but a few feet in any direction. Believing that he was either attempting to free himself from the hook by rubbing it against a stone, or was endeavoring to entangle the casting-line in drift stuff, or among the rocks, for Salmo is full of expedients, I soon gave him the full strain of the rod.

For a few seconds I could not induce him to move, but finally he yielded and began another series of fierce runs, interspersed with wild leaps and spells of sulkiness. At length he began to show signs of exhaustion, his runs became shorter and his struggles weaker, until, finally, he lay on his side, conquered. Cautiously reeling in my line until the fish could be reached with the gaff, I gave the word to François and the prize was won.

As the fish was lifted into the canoe, the other canoe, containing the Judge and the two guides, glided into the pool.

"Bravo," exclaimed my friend; "that 's a very handsome fish."

"Yes," I replied, "and he was a grand fighter, too; he had more strength than a fish ordinarily has of twice his size."

I now yielded the water to the Judge, who quickly began casting while I packed my rod and tackle, and made preparations for our long journey home. For two hours my friend worked industriously and with good success, his catch being a salmon almost the counterpart of mine, a couple of grilse and several large sea trout.

He at length came ashore, and the Doctor joining us, we made final preparations for leaving the river.

At a point near the foot of the pool was a wood road which led to an adjacent farm, where after attending to our toilets and changing our clothes, we procured horses and wagons to carry us to the station, which was about ten miles distant.

Our baggage was safely packed, and everything was ready for our journey, when the Judge took from his portmanteau a bottle of choice "Hermitage."

"Gentlemen," said he, "we have had a magnificent trip. We have been blessed with glorious weather, grand success, and perfect health; let us pour a libation to this, which has been one of the most enjoyable of all my summer outings, and express the hope that the coming year will bring another as pleasant."

We gladly joined our friend, and added to his toast the wish that "his life might be long and prosperous," that "his shadow might never grow less," and that his next year's fish might break his record.

As we shook hands with the guides and bade them "good bye," the dear old Judge slipped into the hand of each a golden eagle, as a present above the stipulated wages.

"Good bye, gentlemen," exclaimed Hiram, as we stepped into the wagons; "God bless you all, and may you come up again next summer in the best of health and strength, and may you have as pleasant an outing as this has been."

Reader, my story is told; it is not a thrilling narrative of "hair-breadth 'scapes, and moving accidents by flood and field," but is rather a simple record of incidents which have occurred in my experiences with some of my congenial friends by lake and river side. It is "a plain, unvarnished tale," and it quite inadequately describes the pleasures, the fascinations which every lover of Nature finds in the grand old woods. Incomplete though the story may be, I hope that it may serve to awaken pleasant memories among those who have tasted such delights as I have attempted to describe, and prove an incentive to those who have not partaken of them, to follow the path which leads to their abiding-place.

Photo. by W. L. Underwood.

HALCYON DAYS.

CHARLES HALLOCK.

Author of "The Fishing Tourist," "Salmon Fisher," "Sportsman's Gazetteer," and "Angler's Guide."

CHAPTER VII.

CAPE COD WAY.

By CHARLES HALLOCK.

CRUISING along the chain of Elizabeth islands, and through Vineyard sound, Cape Cod way, the favored yachtsman may drop in, by invitation, at Pasque island, or Cuttyhunk, and fish for striped bass from points of rock; or he may keep away for Vineyard Haven or Wood's Holl, to the right and left, and try his "land tacks" among the summer girls who dip in the surf. But if it is grapes he wants, he'll get none; nor vines, either. Martha's "Vineyard," as the charts have it, seems to be a misnomer or an anachronism. Romancers may contend that grapes were abundant on the tight little island when Gosnold discovered it in 1602; but whatever was then, is not now. Neither vines nor wines are found. There is no aroma, or even suspicion of Tokay or Falernian about her wave-washed precincts; the sands bear witness! but rather "an ancient and fish-like smell," which is perhaps most noticeable when the tide is out, or the wind blows fresh from the south'ard. Prohibition reigns supreme, and there is neither saloon nor "speak-easy" in the entire domain. As an old skipper declared to me, on the Edgartown wharf: "The only vintage I ever heard of here was balm-of-gilead buds soaked in rum, which the old sailors used to take to sea with 'em to cure sprains and bruises." Yet, Hudibrastically speaking, I have always fancied that I could detect a trace of *old port* about the time-honored harbor; an intimation of mine which the ancient mariner received with a sardonic smile.

More than once, in the columns of my old *Forest and Stream*, which sportsmen have learned to know so well, have I recalled some vivid reminiscences of those flush times, fifty years ago, when Edgartown was all alive with whaling vessels, just in from the Pacific, or "up for the ice," and the ring of the jolly "yo-heave-ho" was heard in the roadstead of vessels getting under way; of which some part may be interpolated here, to the pleasure, perhaps, even of those who have read the lines before. Jack Tar was metaphorically in clover then, and the atmosphere was heavy with fumes of whale oil. Smells were not discriminated, if the purse were only full. Ambergris or blubber, 't was all the same!

Fortunes were sometimes made in a three years' cruise. Hopeful apprentices did not so much mind "crossing the line" on their way *via*

Cape Horn, when possible bonanzas were in prospect. Like the earlier argonauts from other Greece, they came home bearing gifts from foreign climes, and every one's sweetheart flew blue peters from their Sunday hats when their lovers' vessels hove in sight. Even now the older dwellings are filled with whilom souvenirs, and dooryards teem with introduced exotics, interspersed with whale's ribs and conch shells.

It was the fashion then for resident ship owners to build little conning decks with balustrades upon the roofs of their houses between the chimneys, whence they could discover their incoming argosies fifteen miles away. Many of these high perches are conspicuous still at Nantucket, as well as at Martha's Vineyard, and often the summer sojourner will observe thereon a venerable form, white-haired, but stalwart, looking seaward with marine glass, not so much from present interest as force of early habit; for the whaling business took a tumble in 1846, and vessels and captains have long since gone out of commission. Most of the old salts lie in the cemeteries, with fulsome epitaphs in marble, and of the entire fleet only a sole dismantled hulk survives, creaking lugubriously against the rickety wharf when the waves heave: a mournful memento of pristine activity, and a perennial object of curiosity to *fin de siècle* visitors at the Vineyard. The first whaler was sent to the Pacific ocean in 1791, and in 1820 there were seventy-two vessels registered at Nantucket alone, not to mention as many more at Edgartown and New Bedford.

Aye, my mates! things are vastly different now from what they were in the old days when Edgartown was essentially *the* Vineyard, just as Paris is allowed to be France, and the rustic islanders used to ride pillion into the busy port of entry from the outlying purlieus of Chilmark and the Tisburys, and even from the land's end at Gay Head twenty miles away, to buy knickknacks and comfits, and get the gossip from the mainland by the weekly mail boat, which crossed the sound to Holmes Holl.

A trip to the main was an event in those days. Excepting those who regularly "followed the sea," few ever left the island. They simply vegetated and intermarried, as all insulated communities do, until every one became related: so that, whenever any one unfortunate sailor was lost at sea, the whole community mourned. Visitors seldom came, and strangers never cared whether the Vineyard schools kept or not, or whether the Mayhews, Allens, Marchants, Coffins, or Butlers, ruled the social roost. My mother, born at Tisbury, was an Allen, daughter of Ezra Allen, and a blood relation of them all: and a daughter of hers, born in 1840, bore the collective family names of the whole consociation, by way of compliment, just as a vessel flaunts a string of pennants when she "dresses ship" on a gala day.

In these end of the century days our Martha has donned a new attire and assumes light airs. She has thrown aside dull care and vulgar trade,

and subsists largely on *soufflées* and ice cream, like all the rest of the giddy world. Perhaps it is just as well, at this time, for Martha has naturally a "Gay Head," and attracts readily by her blandishments. Not only have the old retired sea captains made Edgartown their asylum, but the entire wave-cinctured island has become a cosmopolitan elysium, a populous summer garden, where the blare of trumpets and the hilarion of the out-door girl rings out from Squibnocket to Chappaquidick. Seaview houses and hotels occupy all the breezy points. Flags stream from jackstaffs on the high bluffs. Rows of bathing houses line the pebbly shores. Steamboats ply to New Bedford, Wood's Holl, Nantucket, and all contiguous points. A noisy railway motor industriously weaves its social web, as shuttle-like, it threads its way along the beach, between the ancient oil town and the old campmeeting site now occupied by Cottage City and the Highlands, with their parks and plazas and asphalt walks, their domes, spires, and minarets, their *partêrres* of flowers, bandstands, soda fountains, and tennis courts, all blithe with bunting, and so gay and jaunty all throughout that the scene looks more like "Vanity Fair" than a staid and pious campground. Then there are booths and news stands, and cabs and lunch counters, and lines of horse cars running to Vineyard Haven, where multitudes of yachts glide in betimes and make the harbor brilliant with their anchor lights at night, whose jaunty crews in blue and gilt enjoy to come ashore, with a nautical hitch of the trowsers, and interview the *ci-devant* ship captains, flinging their sea vernacular recklessly to windward. Everything is animated and restless, like bees swarming. Thirty thousand people enjoying together the delights of frivolous pastime and easily keeping cool in torrid weather, while less fortunate ones are sweltering elsewhere, for there is not a spot along the Atlantic coast where refugees can be so certain of exemption from excessive heat as on this sea-girt isle.

Oh! it is a beautiful isle, my mates! with its pictured cliffs flashing with chrome and carmine, and its green heights crowned with cedar: a plaything of the ocean, tossed by the great waves, lashed by the tumbling surf, and fanned by the soft winds of summer. It is at its best in July and August, when the air scintillates with a golden haze, and gulls hover over the reefs; and I could tell you of many a stroll along the shore then, and what the receding tide revealed; or of jaunts overland to South beach where there is delectable surf bathing and feeding-grounds for snipe; of flying trips around the entire island on a smart smack with a wet sheet and flowing sea, with lines out astern half the time for ocean bluefish; of a morning cruise after mackerel, starting before daybreak and returning with a spanking breeze in the afternoon; and of clam dinners at Katama, and excursions to Gay Head, with its incidental ride to the lighthouse "in an ox cart driven by an Indian guide," as the bills read, albeit the last surviving Indian died in 1822, and the last with any trace of Indian blood, in

From "Outing." 1888.

WITH LINES OUT ASTERN HALF THE TIME FOR OCEAN BLUEFISH.

1854. In 1763 there were 358 of them, of whom 222 were swept off by plague the same year, leaving only 136. It took fifty-nine years after that to run the race out; yet once they were of such numerical strength that King Phillip thought it worth his while to visit the island to enlist their services on his side. There were three wigwams standing in 1795.

There are at least one hundred fishing vessels, chiefly sloops and catboats, engaged in mackerel fishing during the season, making diurnal trips out and in from the schooling grounds; and if the novice wishes to take a hand in, he has only to walk down to the wharf and pick out the skipper he likes best, and arrange to be aboard at three o'clock in the morning. Any one of them will be pleased to have help to handle the fishing lines, and will charge nothing. The trip, however, involves a rusty suit of clothes, or, better yet, an "ile suit"; for fishing is wet and somewhat dirty work. When the mackerel bite lively one has all he can do to tend three or four lines and "slat" the fish off over the "crotch irons," as they come inboard, and much sea water comes up with the lines into the sleeves. The early rising before daybreak, the unwonted phenomena of the roseate dawn, the exhilarating salt sea breeze, the run out into the broad ocean, and the continuous "bait, heave and haul," as the metal jigs go out and the mackerel come in, comprise the ordinary experiences of the trip. Punctually at noon each day the vessels appear in the offing on their return, and usually they run into harbor by three o'clock, with a fair wind and a rap full; and it is inspiring to see so many white-winged craft bunched up together and swooping into port like a flock of gulls, with their canvas flashing in the sunlight. Sometimes they bring in a swordfish, and perhaps a sawfish, each mighty with its armature, which have been harpooned from the surface of the deep when the sea was smooth, and the lookout spied them from the mast head, or his cradle on the jib-boom. Strangers, as well as friends, are always interested to inspect such goodly commercial prizes whenever they are landed on the fish-house wharf. It is quite the fad for the hotel guests to fish off the wharf in the running tide with cut bait and hand-line, and many plaice, or flounders, are caught of twelve pounds' weight. One don't mind the gore and slime when good luck attends.

Few places, indeed, afford a greater variety of landscapes, or more novel pastimes than Martha's Vineyard, even to those who come at the "eleventh hour." These are as sure to get well paid as those who have borne the heat and burden of the day. And as for sea food, the fare is incomparable. The antiquity of the island, too, is charming. Gosnold, the navigator, discovered it eighteen years before the Mayflower came. Nine generations have succeeded since Rev. Thomas Mayhew took formal possession of it under a grant from Lord Sterling, in 1614, and assumed a suzerainty over the resident Indians. The American Tract Society has

published a history of his missionary work, prepared by my late uncle, Rev. William A. Hallock, D. D., who was for fifty years its secretary.

In July, 1641, the Rev. Mayhew organized an Indian church, the care of which was transmitted from father to son until 1692, when the island was annexed to Massachusetts. Martha has always been much more pious than her godless sister of Nantucket, where, up to 1781, from 1641, a period of 140 years, there had been but one settled clergyman, and out of a population of 3,220 whites, in 1765, only forty-seven held pews in church. But Nantucket, if not pious, was patriotic, for, from 1775 to 1781, as the record shows, the Revolutionary war cost her 1,620 lives. These belonged to the church militant. For one hundred years, up to 1880, the twin sisters pursued the even tenor of their destiny, bathed by the churning surf and fanned by the ocean breeze, blooming and blushing quite unseen in their mid-ocean isolation, until the Cliff House was opened at Nantucket, the railroad built, gas and water introduced, and she, like Edgartown, emerged into her present butterfly life. At the same time, old traditions and ancient landmarks are jealously preserved, and the child of to-day can tread the walks of his ancestors and enjoy the same environment as they did. He will miss only their living presence. The site of the first house in Edgartown, which was built in 1630, is easily located, and in the old burying ground on Tower Hill are gravestones, with legible inscriptions, 255 years old. The old Mayhew two-story manor-house, with its thirteen rooms, spacious halls, and numerous cupboards and clothes presses, still stands tenable on the east water front, built two centuries and a half ago; and away back in the fog and spoon-drift of the misty past there are traditions of early voyagers who navigated, without disaster, the intricate, and unbuoyed channels, sounds, and "holes" which thread and divide the many islands, reefs, banks, shoals and rips which beset the Vineyard, where in more recent years far stauncher vessels have gone to pieces.

By all accounts, the beaches, fresh-water ponds and estuaries are the resorts of numerous shore birds and sea-fowl which congregate there in their respective seasons, such as black ducks, teal, dough-birds, plover, curlew, snipe, wild geese, and brant.

August is a crack month for shore birds, and once, the day after an easterly storm, I strolled down to the South beach to look at the surf, and watch for movements, as there was reason to expect something of a flight. It was a calm, gray day, with intervals of sunshine and occasional whiffs of wind from the west. The surf was not running as was expected, and so I worked my way back from the beach to the hotel at Katama, which is scarcely a mile distant, scrutinizing the bits of marsh and margins of the fresh-water ponds which lie just inside of the cordon of sand dunes by the seaside, though with hardly satisfactory results. On one mud flat which

was covered with water at high tide, I did flush a brace of graybacks and three sandpipers, but they rose wild. The two graybacks hastily slipped over the crown of a sand dune and were lost to sight, while the three peeps circled around the pond twice and then settled again near where they first showed up. A little farther inland I heard a familiar sound overhead, and looking up I saw three fine snipe high in the air steering due south, straight for Nantucket, though all of a sudden they tacked and flew "nor' nor'west by nothe," as the seafaring men would say.

"*Scaip! scaip*"! they all cried, and it might have seemed an escape to them, though, to tell the truth under breath, I had no gun with me. To me it did not seem a very close call, by the sound. Later on I saw a flicker fly out of a patch of scrub-oaks and alight on the top rail of a neighboring fence; and afterward we started up a robin and a chewink near the hotel veranda. But we saw no other birds of any kind as we traversed the upland. These did not, of course, excite any great amount of enthusiasm in themselves, but I remarked to my wife, who accompanied me, as we slumped into the armchairs on the porch, that it was a pity to lose such chances on game in consequence of having no gun, and she naturally acquiesced. At that time it was about four o'clock, and our motor was to leave for town at six.

Just at that juncture we happened to descry the figure of a man clad in black emerging from behind an adjacent point of scrub-oak woods with a gun on his shoulder and a doubtful sort of dog following, headed for the beach. I could not repress an outburst of envy at the sight.

"There, now!" I exclaimed, "I was sure this was a good day for shore birds, and that man is bound to have some rare sport. These island gunners know a good day when it comes, and let no chance go by if they can help it. You hear me"?

Even while I spoke the figure halted and the dog in attendance sat down. Then a puff of blue smoke was projected into the atmosphere.

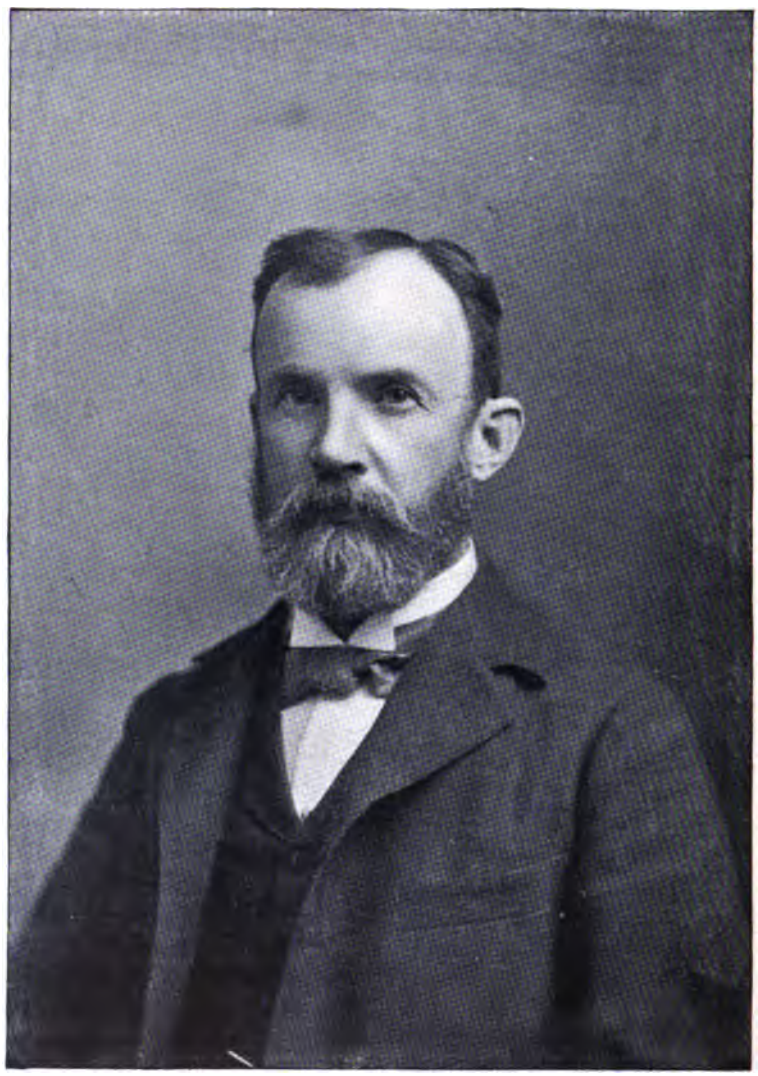
"He's got one already"! I said.

We did not see him pick up anything at the moment, and the dog appeared not interested, or else absent-minded. At all events, he sat quite still. At first we were inclined to wonder at this, but when the man with the gun presently shot a second time, and again, without moving from his position, we decided that he knew his business thoroughly, no doubt of it.

"The birds always come around back to the same place if you wait," I explained. "After he has shot again he will gather up the game."

"Does n't the sportsman's dog usually retrieve the birds"? Madam asked.

"Why — er — well, yes; that is, when they fall into deep water out of reach, or into briar patches, or tall grass, where the man cannot find them himself."



THOMAS MARTINDALE, PHILADELPHIA.

Author of "Sport Royal, I Warrant You."

This explanation did not seem to be accepted as a postulate by Madam, who presently dropped into a brown study. Directly the brown became a shade lighter, and she remarked with some vigor, "For my part, I don't see of what use the dog is anyway."

"Neither do I," said I.

Just then the man shot again. He was so far off by this time that we could see the smoke from the gun an instant before we heard the report. The air was still and the report distinct, and a glow from the western sun threw the outlines of the sportsman and his dog into sharp silhouettes against the sky whenever they topped a sand ridge. Wife said the dog's figure looked like a mastiff. We noticed that whenever the man raised his gun to shoot, the dog sat down.

"He is trained to drop to shot," I exclaimed.

"*That's* all right," retorted madam, "but I don't see any birds drop"!

At this juncture the fusillade increased, and I insisted that the man must be having great sport, and that where there were so many shots, there must be some birds. "That man cannot afford to waste ammunition recklessly," I contended. "Why, those cartridges cost at least two and a half cents apiece, and he has fired at least two dozen times."

Then, for at least ten minutes, we watched the proceedings in silence. There were no other persons excepting ourselves on the south veranda. All the hotel guests seemed to have chosen the shady side. The air was so still that we could hear the throbs of the surf upon the beach three miles away, and we gratefully sniffed the odor of the salt sea air, which seemed fresher and more invigorating every time a wave broke. At the same time the reports of the gun punctuated the rhythmic cadences like cesural pauses in a scanning of spondaic lines. Frequently both barrels went off in quick succession. We noticed also that a second sportsman had taken the field.

"That's business," I said. "Now they will keep the birds moving, and what one misses the other will get. They will drive the birds to each other. I dare say the day's bag will trump Martin's Point on Currituck every time."

Then I began to grow restless. I never felt so restless in my life. And I began to feel more than envious of the sport from which I was debarred.

"Just my beastly luck not to have my gun"! I murmured. "Never did have my gun at the right time. Here is the best day for shore birds I ever saw, and my gun five hundred miles away. But who would have thought of bringing a gun at this season of the year? Such a chance don't happen once in a dog's age. You see, yesterday's blow has just covered the coast with flotsam, and the whole landwash is lined with food. Don't you notice the mackerel gulls a-flying? That's a sure sign. Fisher-

men always swear by the gulls. Of course we were too early at the beach when we were down there at noon. It was the wrong time of day. Birds don't begin to fly until the middle of the afternoon, and that is the reason we did n't see more. These sportsmen have just hit it. They know when to take them. Island gunners are hard to beat. There they go again! Another shot! two more! three together! Dear me! The beach must be alive with them."

Thus I remarked, and brooded, nursing my disappointment. Wife looked sympathetic, but was silent and serene. Finally I could bear no more.

"Come," I said, "let us go down to the inner shore and gather shells. Spent shells are better than no ammunition at all, even if they be but sea shells. I will wind my hat with weeds, forsooth, in token of my grief. Doubtless more than one poor widow has donned weeds for sailors shipwrecked in yesterday's storm. Depend upon it, lives have been lost — lots of 'em. There will be sad tales of disaster when the reports come in."

Quite naturally my sympathies went out to the bereaved. Then, hand in hand, we went to the landlocked beach of Katama bay, where no angry sea ever disturbed its sands, all unconscious of a second storm, which was so stealthily gathering for the morrow. We did not know that the deceitful calm was what the seamen call a "weather breeder," and that we were in the central eddy of a formidable cyclone which had started somewhere down in the West Indies and worked its way thus far up the coast in a convoluted series of littoral whirls. For our own enjoyment it was perhaps as well. Heaven, they say, is elysium, even with the bottomless pit at hand.

Here beautiful marine mosses and parti-colored pebbles lined the shore just where the wavelets lapped. Succulent *algæ* clung to half-submerged bits of wreck, long since tempest tossed, and spread their long filaments to the rising tide. Limpets and razor clams traced their furrowed trails upon the ooze which the receding waves had bared. Farther out, in the channel, quahaugs and giant clams peacefully awaited the advent of the tong men to lift them out of their beds of mud, with long-handled forceps which reached to the bottom. We passed an hour in quiet abandon, gathering pocketfuls of trophies which we did not want, and so lingered until the whistle of the locomotive in the distance admonished us that the train approached. Then we climbed up the sand bluff to the hotel veranda, and while we waited for the moment of departure a sportsman drove up in a buggy with a coach dog behind him. It was the identical man whom we had been watching out on the moors with so much interest. His face was flushed with exercise, and the sun had burned him to a red-hot tan. He had a heavy ten-bore Scott gun with him, and as I approached him with eager curiosity to ascertain what success he had, he at once

began to complain of being badly pounded. He said his shoulder was lame. (From his Chesterfieldian nonchalance, I saw at once that he was an Englishman.)

"You fired many times"? I suggested.

"Yes, quite a few."

He looked so cheerful all the while, however, that I at once credited him in my mind with a very large bag. All the while I did not see any birds lifted out of the wagon. Neither did the hostler who came to take the horse to the stable. The gentleman dismounted then, and walked toward the veranda, where my wife remained sitting, and the dog went away with the wagon. I offered him an extra seat, and he sat down beside me, readily. It was only natural, I thought to myself. A fellow feeling makes us all congenial, "Birds of a feather," etc., "Two hearts that beat as one," and all that sort of thing. Proverbs came pat and *apropos*.

"What were you shooting at"? I ventured to ask.

"Sandpeeps," he answered, ingenuously.

Then the bottom fell out of all my conceit. It dropped with a thud, like dough.

"You must have seen a great number"? I pursued, gloomily.

"Yes, quite a few."

"Get any"?

"I hardly think I hit a single one. I am not half a good shot, don't you know." Then he added, after a pause: "I don't think the gun scattered enough."

"Choked"? I suggested.

"Well, I am not so sure about that; it was given to me for a good gun."

Evidently the term "choke" was new to him. He seemed to think it an affection similar to strangulation.

"Did the other fellow, who was shooting, get anything"?

"I believe he picked up one; am not altogether sure."

"Did you see any beach birds when you were out? any graybacks, snipe, willets, dowitchers, marlin, or dough-birds"?

"I don't think it; I don't think I should have known them if I did."

This was painfully candid. After a little he explained that he had never done much gunning. Indeed, he did not remember of ever hitting anything in his life. He was just down at the beach for a day off, and thought he would try his hand, to pass time.

"Could you tell me how many cartridges you fired"? I asked, anxiously.

He felt in his side pocket and counted with his fingers.

"I hardly know," he said. "I have four left. I must have had fifty in all."

Then I drew a long breath. My mind experienced an indescribable

relief. I could have almost hugged the man for his candor. So it was *not* a good day for birds, after all! Then I was glad I had brought no gun.

The next day, with Thoreau's charming book in my hand, I crossed Vineyard sound and took a jaunt down the whole length of Cape Cod to the land's end. For mile after mile I followed the identical route which the good man had chosen fifty years before; along the beach and over the dunes, across the sands, and past the old windmills and wrecks, and into the lighthouses and fishermen's huts, and past travesties of so-called "farms" where the soil is so scant that mature corn stands only breast high, and fruit-bearing apple-trees grow no higher than one's head; skipping the railroad ties as I went, until I rose the Town Hill at Provincetown at the terminus of the route, and so rested at Gifford's.

By all accounts the end of the cape is a great resort for foxes and rabbits, which love to burrow in its warm sands and forage upon the demesnes of the numerous sea-fowl which congregate there, such as black ducks, plover, curlew, shore birds and brant. A local authority asserts that raccoons and quail are numerous. I can testify as to English sparrows. Just imagine! Where will these feathered tramps not penetrate? Parties from New Bedford make yearly visits to this place for the purpose of fox-hunting. Between coursing, fishing, shooting, bathing, boating, and sailing, the local attractions are great, to say nothing of the cool comfort one gets in summer when everywhere else is hot.

In Pilgrim times the Fathers must have had grand sport, for Mourt's *Journal* mentions deer, partridges, and great flocks of geese and ducks, and Bradford, the historian of the colony, says, "Besides water foules there was great store of wild turkies, of which we took many, besides venison, etc."

Reminiscences of this sort make Cape Cod interesting to the visitor of to-day. No burgh in the good old Commonwealth of Massachusetts is so replete with historical facts as Provincetown, and all who are familiar with them will rejoice that a suitable monument is about to be completed there to commemorate a period so pregnant with momentous events.

FRANK H. RISTEEN, FREDERICTON, N. B.

CHAPTER VIII.

Caribou Hunting in New Brunswick.

By FRANK H. RISTEEN.

By many sportsmen of experience the woodland caribou is given a higher place in the category of game animals than the moose. His solemn, almost patriarchal aspect,—his silent, furtive, whimsical ways,—his mysterious migrations from one section of the country to another, which seem to be the product of sheer restlessness rather than of reason or necessity,—his wonderful speed and endurance in traversing the deepest snows of winter and his capacity to thrive upon such evanescent and ethereal fare as the reindeer-lichen, are among the factors which make the caribou an object of interest to all who have formed his acquaintance on his native heath. Like the moose he is a true child of the wilderness and intolerant of the presence of man.

It is reasonably certain that no section of North America within convenient reach of the big-game sportsman, with the possible exception of Newfoundland (where the caribou attains his greatest perfection but where the laws are very stringent as to visitors), now offers facilities equal to those of New Brunswick for caribou hunting. The vast primeval wilderness of this Province, untainted still for the most part by the touch of man, is interspersed with innumerable barrens, or "bogs," as they are commonly called in Maine, as well as a marvellous natural network of lakes and streams, whose unfrequented shores constitute a genuine caribou paradise.

The uniform testimony of competent observers is that the caribou population is rapidly increasing in New Brunswick and it is the theory of some that the persistent hunting, in season and out of season, which these animals have experienced of recent years in Maine has resulted in a considerable exodus to New Brunswick, where up to the present time they have scarcely been molested. On the headwaters of the Tobique, the southwest and northwest Miramichi, as well as of the Nepisiquit, it is not uncommon for herds to be seen numbering from fifty to one hundred individuals. Wolves and panthers are now unknown in this Province, the lynx is becoming rare, and the only natural enemy the caribou has to fear is the black bear, whose efforts in stalking and pulling down unwary stragglers from the

herd are more successful than is generally supposed. In the rutting season, however, the bull caribou has the courage of his convictions and, unless he is taken unawares, is more than a match for a bear.

The open season for caribou in this Province, as well as for moose and deer, extends from September 1st to January 1st. Without doubt the most favorable period of the year for a caribou hunt, pure and simple, is in November when the barrens are frozen so as to admit of easy travel and when there is usually sufficient snow for tracking. These conditions are equally present in December, it is true, with the added advantage of good snow-shoeing, but by the end of the first week of that month a large proportion of the animals, especially the oldest and largest bucks, have shed those beautiful antlers, which, by the amateur stalker, at least, are so eagerly desired as trophies of the chase. Still, there are many portions of the Province, such as the headwaters of Salmon river, the Nepisiquit, the Restigouche, and the various branches of the Miramichi, where the months of September and October afford excellent sport.

The horns of the male caribou are often very massive, sometimes containing over thirty points and exhibiting great diversities of structure. It is very seldom, indeed, that any two pair of horns are found that closely resemble each other. The peculiar formation of the brow prongs, however, renders it impossible to mistake the horns of a caribou for those of any other member of the deer family. Many opinions prevail as to the proportion of females bearing horns, but the consensus of belief is that not more than one cow caribou in every ten is thus adorned. The horns of the female are always far inferior to those of the male in size and beauty.

A strange feature of caribou life which has been noted by many observers, but which has never been adequately explained, is that when the animals are especially numerous in a certain district, the fecundity of the females is sure to exhibit a marked decline. Perhaps not one cow in every three will bring forth calves in the spring. It seems reasonable to suppose that the food supply in a given area has a very important bearing on this question.

The construction of the caribou's hoof is peculiarly adapted to enable him to travel in the deep snow. It is concave at the base, is as wide even when contracted as that of an adult moose, and will spread laterally when the animal is running on snow to a width of about ten inches.

The prevailing color of the caribou when he has donned his autumn coat is a dark fawn inclining to gray and fading to almost pure white on the neck and under parts of the body. An educated eye is required to distinguish his form on the sombre gray of the barren, where all kinds of vegetable life assimilate to him in color. Caribou differ greatly in general appearance, some being almost as graceful as a deer while others resemble an overgrown goat. They exhibit also a variety in facial expression bor-

dering on the grotesque, some having a muzzle arched like that of a horse, others resembling that of the domestic cow, while others approximate to the Virginia deer. Their weight is seldom under 250 and seldom over 450 pounds.

In the depth of the Canadian winter a herd of caribou may often be seen systematically scraping away the snow on the barren in order to reach their favorite moss. When from the scarcity of food it becomes necessary for them to shift their quarters, they will adopt that habit which seems instinctive in all members of the deer and elk families inhabiting northern climes; they form in single file and push each other forward through the snow, the leader being relegated to the rear from time to time, as he wearies with breaking the road. Is chivalry confined to the human animal? Why is it, then, that it is always a buck who assumes the office of snow-plow and faces the blinding drifts?

The conduct of caribou in the presence of man is very eccentric. As a rule the report of a rifle will occasion them little or no alarm, nor do they readily take fright at the sight of unusual objects, but the least whiff of human scent will start them off on the gallop. Sometimes they will display a large degree of curiosity, and upon catching a glimpse of the hunter behind a knoll or fallen tree, the entire herd will march forward with the utmost apparent coolness to make an inspection. When one of their number has been killed it frequently happens that his comrades will circle around the hunter for several minutes, as he is engaged in skinning the animal. When a herd of caribou is on the move the hunter will often succeed in bringing them to a full stop, by giving an imitation of that peculiar grunt or bark, which is the only vocal sound the caribou is ever known to utter. This grunt is precisely the same in the female as in the male. It is sometimes employed by experienced hunters for the purpose of "calling" caribou, but has not the effectiveness of the moose call upon the latter animal, for the reason that even though the counterfeit call is perfect, it is not loud enough to be heard beyond a very short distance. A herd of caribou will sometimes stampede at the faintest sign of danger, or no apparent sign at all; at other times they will huddle stupidly together or walk aimlessly about while the death-dealing rifle is thinning out their ranks.

I have a vivid recollection of my first sight of caribou. In company with an American friend, and having as our guide the renowned Henry Braithwaite, whom I verily believe to be Canada's greatest woodsman, I had been sojourning for a week or more in a trapper's camp on the shores of Little Sou'-West Miramichi lake. Our object was moose, but as yet the guide had called without success. One morning it was decided to vary the monotony by taking a trip to another large lake about three miles away, which Henry said was a famous resort for caribou. A dry barren

was crossed, where we found quite a number of cast-off caribou horns bleached by the weather as white as snow, and then the peaceful waters of the lake were seen glimmering through the trees. No sooner had the shore been reached than we saw on the opposite side of the lake, and walking rapidly toward the upper turn, three cow caribou (one accompanied by a calf), and a magnificent specimen of a bull. He was herding his interesting family before him in a truly paternal style, and as Fred remarked, was simply hurrying up to get shot. The guide took in the situation at once. He hustled us, at a killing pace, through the bushes to meet the drove at the head of the lake, because at that point a marshy brook intersected the bank, and he feared that the drove, instead of keeping to the shore of the lake, would branch off, and follow the line of the brook. We had not much breath to spare when, upon reaching a small opening in the canopy of trees, the first of the herd appeared in front of us, about seventy-five yards away, and as Henry had prophesied, wheeled to the right and vanished in the tangle of riotous vegetation that masked the mouth of the brook. "Wait for the bull"! was about all the guide had time to say, when, as the phantom procession flitted by, the royal animal came in view. He seemed to be suspicious of an evil presence, but conducted himself with the dignity and decorum befitting his responsible position. It was impossible for a novice to miss that white shirt-front that gleamed against the background of evergreens. Two rifles sounded as one, and straightway a look of care came over the face of the bull. Again we fired, when to our surprise the caribou shook his head indignantly, and charged in our direction. It was the last supreme vindication of his courage and vitality, for as he reached the brink of the brook he toppled forward into the stream, driving one of his antlers up to the hilt in the boggy bottom. Four bullets (45–85) had pierced his breast and shattered his internal economy to atoms, and yet he stood upon his feet long enough for us to have fired twice as many more.

On this same hunt I had the good fortune to bring down another very fine old bull. Fred and Henry had gone away up in the region of the Cow mountains to call for moose, and the cook and I were cruising around the big lake in a bark canoe, vainly seeking to circumvent the ducks. Late in the afternoon, having sufficiently anathematized the ducks, we began to paddle our way home leisurely by the northern shore. As the canoe approached a rocky point upon which the mimic breakers of the lake were beating their murmurous lullaby, there suddenly appeared a small cow caribou, with limbs as delicate as those of a deer, and behind her a fine old bull, stepping daintily and noiselessly around the turn. The canoe was heading straight for the point, and the wind was blowing from us almost exactly in their direction. They were about 150 yards away when first seen, and the canoe drifted rapidly towards them. Any one who has

Photo. by O. A. Atkins.

HIC JACET CARIBOU.

tried to draw a dead cold bead on the living target from a bark canoe, which is being wafted up and down by the gently undulating waters of a lake, will comprehend the feelings of a man in the bow. However, as it afterwards appeared, my first shot at the bull was not wasted, the bullet passing through his neck. He turned partly around, and faced out into the lake in an attitude of deep contemplation, as though he had been stung by some new kind of fly unknown to his experience. Neither of the caribou seemed to see the canoe, or heed the crash of the rifle. A second shot, delivered at somewhat closer range, went through the bull's anatomy behind the shoulder, and he dropped in the water without a sign of protest. The cow did not appear to realize that she was a widow. She turned her shapely head quietly around, took a casual glance at the dear departed, and seemed to think that the old gentleman was indulging in the unwonted luxury of a bath. By this time, however, the cook had reached the explosive point. His excitement over these events, and his rooted prejudice against the prospect of more bull caribou meat for the larder, made a terrific inroad upon his slender store of sanity, and the roar of the shot-gun in close proximity to my valued right ear, acquainted me with the solemn fact that Jack was attempting to mow down the cow with duck-shot! A realizing sense of the uncertainty of life then seemed to dawn upon the cow, and she bounded up the bank and into the woods like a flash. The next feature of the programme was an involuntary plunge of the distracted Jack into the lake, from which he made his way with difficulty to the shore. He, too, vanished in the woods, and I believe searched for the remains of the cow long and faithfully, but all in vain. The proceedings when we reached the camp were of an exceedingly festive description, for it presently transpired that at the selfsame hour when I was acquiring the caribou, Fred was covering himself with glory by shooting an exceptionally fine specimen of a bull moose.

I have hunted caribou on the snow but once, and a most exciting experience it proved to be. The guide was a Milicite Indian and our camping place was near Rocky brook. We had killed a moose after a long chase up the frozen stream and, having consumed the remainder of the day in hauling the meat to camp, decided to cruise the barrens for caribou on the following morning. The air was still and frosty and not a sign of life appeared on the melancholy waste of snow as we silently skirted the big barren. There was plenty of snow for good snow-shoeing, but we could have wished that the pendant branches of the trees had not upheld so generous a supply of that material. More than once as we brushed against an overhanging bough, a miniature avalanche of snow was launched down the back of our necks, causing our reflections for the moment to be anything but reverent. John found many traces of the recent presence of caribou, but none that appeared fresh enough to deserve

attention. Finally, having floundered around among the hummocks for several hours, we left the big barren and, after a most heartrending tramp through a thick growth of stunted spruce, emerged upon the little barren. For a time nothing was to be seen. At my suggestion John climbed a tree and carefully scanned the glittering expanse. Suddenly he uttered a gutteral exclamation in his native tongue, slid down the tree at such a pace that he brought with him a shower of broken twigs and branches, and then whispered, hoarsely:

"By tunders! nine, 'leven, twenty-five caribou comin' down wind like railroad. Look out"!

The information, though slightly indefinite, was in nowise premature. I had just sufficient time to grasp my rifle and blow the snow from the sights, when a living storm of irresponsible energy seemed to burst upon the dense, low-lying thicket of barren spruce directly in our front, and a drove of caribou, enveloped in a whirling cloud of snow, swept by us within thirty feet at a tremendous rate of speed. I fired automatically without picking out any particular animal, and one of the drove, a young buck with horns that were scarcely more than spikes, dropped in his tracks. At the sound of the rifle a curious transformation scene took place. The entire herd, numbering about fifteen, came to an instantaneous halt and wheeled and faced us like a rank of soldiers. I drew a quick but confident bead on the patriarch of the herd when, as if by magic, the rank dissolved into nebulous patches of white and gray, and with cracking hoofs and scuts erect the herd disappeared as suddenly and almost as mysteriously as they came, scattering the light snow in clouds behind them. Leaving John to dress the young buck, I followed in the wake of the caribou and, about a quarter of a mile away, found the patriarch as dead as a last year's almanac. He had fallen into a kind of depression between a granite bowlder and an upturned root, and had broken his right horn off at the base.

A week or so after this, when our trophies were being hauled out on the tote-road, the other horn was jolted from its place, showing that the animal would have shed his antlers in due course within a few days of the time he was shot, had he been permitted to live so long. These caribou were killed on the 8th day of December. John stated that on November 20th, three years before, he had seen three bull caribou in a herd near Bald mountain, on the upper waters of the Nor'-West Miramichi. One of these caribou retained both of his horns intact, one had dropped a horn, and the third had dropped both of them.

ARCHIBALD MITCHELL, NORWICH, CONN.

CHAPTER IX.

SALMON AND SALMON FISHING.

By ARCHIBALD MITCHELL.

FROM an angler's standpoint salmon fishing is a royal sport. When engaged in merely as a recreation, it is entitled to be put in the first rank as an out-of-door diversion. Salmon fishing does not require as delicate or accurate casting as fishing for trout (in some localities and under certain conditions), but the greater size, weight, strength, and fighting-qualities of the salmon, the lightness of the tackle used in proportion to the great weight of the fish, and the judgment, tact, and skill required to bring him on shore, makes salmon fishing a stimulative and fascinating sport for devotees of the rod and reel.

Anglers who tie their own flies derive additional satisfaction in killing salmon on creations of their own fancy. Any one who ties flies successfully can make a new one, although it would seem that every conceivable combination of feathers, silk and tinsel has already been thought out and tried, and the result is a large variety of standard patterns.

The most popular and leading fly of all is undoubtedly the "Jock Scott," which when correctly tied is a beautiful specimen of artificial entomology. This fly was invented fifty-two years ago, by John Scott, while crossing the North Sea, to fish in Norway. He was at that time water-bailiff for (strange to relate) one of the same name, Lord John Scott.

A salmon-fly when neatly, firmly and artistically tied, is a beautiful object to look at. It takes the eye of the fisherman as well as the eye of the fish; but it imitates no insect, it resembles nothing that lives in air or water, and what salmon take it for is a question which, although nearly every salmon fisherman has a theory of his own concerning it, has not yet been satisfactorily answered.

Many fishermen of large experience maintain that salmon never take food in fresh water, which if true, makes the query still more difficult to answer as to the reason why salmon take a fly at all. Some say they take it out of mere playfulness, others say they are teased into taking it, and take it because they are annoyed and wish to get rid of it. It may be true

that salmon never feed in fresh water, but it is a fact that fresh-run salmon are taken regularly, in some rivers, on a bait of angle worms, and it cannot reasonably be supposed that they take worms for any other object than for food.

Although a salmon-fly is not an imitation of anything that lives, yet when it is skilfully fished in the current of a river it presents a very attractive appearance. The opening and shutting of the hackle, as well as the very natural and lifelike movements of the wings, the flashing of the tinsel and the golden pheasant topping gives the counterfeit really a more lifelike appearance than any live insect presents in the water. It is a beautiful as well as an ingeniously gotten-up fraud, and it is not at all surprising that the fish are deceived by it.

The highest attainment in the art of salmon fishing consists principally in being able to present the fly to the fish in a manner that will attract it, and in handling the lure in such a way that the fish will not be likely to miss it when he attempts to take it in his mouth.

In shooting birds on the wing, easy and difficult shots are met with: there are straight-aways, right and left quarterers at all sorts of angles, and at varying rates of flight. It is similar in salmon fishing, only the fish takes the place of the shooter, — the fly represents the bird, and the angler should always try to work his fly so as to give the salmon an easy shot, which means a good opportunity to get it well in his mouth when he comes for it.

That there is so little salmon fishing within the borders of the United States is a source of constant regret to American anglers. There are a number of salmon in rivers that flow into the Pacific ocean, but as a Scotchman said in regard to the salmon in them, "We hae nae use for a saumon, it 'll no rise to a flee"! Salmon are taken in large numbers in the vicinity of Tacoma, Wash., by trolling with a spoon, usually on a hand-line, but as they do not seem to rise freely to a fly, they are hardly worth the attention of those who follow salmon fishing as a recreation.

There is only one river in the United States and on the Atlantic seaboard from which salmon are taken with a fly in notable numbers, and that is the Penobscot river in Maine. One frequently reads on hotel bills of fare the legend, "Kennebec salmon," but the Kennebec river long ago ceased to yield salmon on account of dams having been built without proper fishways through them, preventing the salmon from reaching their natural spawning beds on the upper reaches of the river. Future generations will probably correct this by seeing that all dams are more scientifically and more wisely built.

The question may be asked, why salmon have become extinct in nearly all of our once famous salmon rivers, when countries with a much older civilization than ours have succeeded in preserving salmon in their

streams, notably — Scotland, Ireland and England. The question is easily answered. The early settlers in this country found that Nature had supplied the rivers as bountifully with fish as she had the land with game, and believing the supply to be inexhaustible, they drew upon it without stint, apparently taking no thought of the future. Is it not true that the average man is naturally the greatest destroyer in the animal creation, until he is educated in some of the first principles of true sportsmanship? When water-power was needed to promote our industries, they built dams without fishways, shutting out from their spawning grounds, salmon, shad, and all anadromous fishes. This meant extermination, and the result, reviewed in this age, is only what might be expected.

Photo. by L. R. Howe.

CASTING FOR SALMON.

It has been said that when the boundary line was established between Canada and the United States, the Canadians succeeded in having nearly all the salmon rivers within their boundaries. That, to a certain extent, seems to be true at this day. But the United States, we must admit, does not take as good care of her salmon rivers as Canada does of those within her boundaries.

A good salmon river yields large revenue. The Tay, in Scotland, brings about $100,000 annual rental for its rod and net fishing. The Connecticut river is superior to the Tay, being larger, and with restocking

and proper protection, there is no reason why it should not be restored in a few years as a first-class salmon river.

Artificial propagation has done a great deal for the Penobscot. Up to about thirteen years ago it was not known that the salmon in the Penobscot river would rise to a fly. During the early summer of 1885, salmon were quite abundant below the water-works dam at Bangor, and Mr. F. W. Ayer of that city had the honor, as far as known, of killing the first salmon ever taken on a fly from its waters. He followed up fly-fishing then for some years afterwards, and met with grand success. In the year 1886 many other salmon fishermen were attracted to the Penobscot from distant parts of the country, and that year the writer made his first visit, and spent about a week there, killing five fish, the smallest of which weighed nine pounds, and the largest twenty-one pounds, and returned home feeling well pleased at having discovered that there was at least one accessible river in the United States on which salmon could be killed with a fly.

The Penobscot river affords a great privilege, and I am afraid one that is not always appreciated as it should be by many of those who enjoy it, for Uncle Sam's water is free to all comers, which makes the salmon fishing there comparatively inexpensive.

I have followed up salmon fishing every year since, and have not missed a season on the Penobscot, making the twelfth annual visit in 1897. The best score was fifteen fresh-river fish, the next twelve, then eight, then six, and down to a single fish a season, as last year. The combined scores of all the fly-fishermen on the river probably never exceeded 200 fish in any one season, and the largest individual score was about thirty fish, killed by Mr. F. W. Ayer. Of late years less than seventy-five fish have fallen to the rod-fishermen, all told. This steady decline is attributed to the increase of weirs on the river and the abolishment of the weekly close time, which is maintained on all known salmon rivers but this one. Few salmon apparently get past the nets, and the supply appears to be kept up almost entirely by artificial propagation.

If the fish commissioners of Maine should for any reason abandon their efforts in supplying this river with salmon fry or parr, it is generally believed that the Penobscot would in a few years cease to be a salmon-producing river, and then we should not have a single stream in the United States from which salmon could be taken with a fly. It is to be hoped, however, that the conditions described will not be realized in the future.

An earnest effort is being made to stock the Hudson river with salmon. Mr. A. N. Cheney, the eminent fish culturist of New York State, takes an active interest in the work, which all hope will eventually prove a gratifying success. Efforts have also been made for several years to restock the Delaware river with salmon, and apparently with some degree of success, but neither of these streams can yet be classed as salmon rivers. An

attempt was made to restock the Connecticut river some years ago, but for some reason or other the effort was abandoned.

Stray salmon are taken in the shad nets almost every year, which demonstrates conclusively that if the work of restocking this river had been continued under favorable conditions, and with proper legislation to protect the fish, the Connecticut would be a salmon-producing river to-day.

As there is only one river in which salmon can be taken in goodly numbers with a fly in the eastern part of the United States, and on which the fishing is confined to less than a mile of water just below the water-works dam at Bangor, the river is usually overcrowded with fishermen during the best part of the season, and as comparatively only few rods can

Photo. by E. W. Anthony.

TIME FOR THE GAFF.

be accommodated there, nearly all those who indulge in salmon fishing must, therefore, go to Canada for it. But the time has arrived when it is very difficult, indeed, to secure a right to fish on a good river in the Provinces, even if one is prepared to pay a big price for it, simply because of late years salmon fishing has become somewhat of a fad among wealthy people, and nearly all the valuable fishing privileges are already either bought outright or leased for a term of years, especially those on the best rivers that are easily accessible. The fisherman who succeeds in buying or leasing water enough for himself and an additional rod for a friend, on

a good salmon river that is easy of access, has secured a privilege which few can procure.

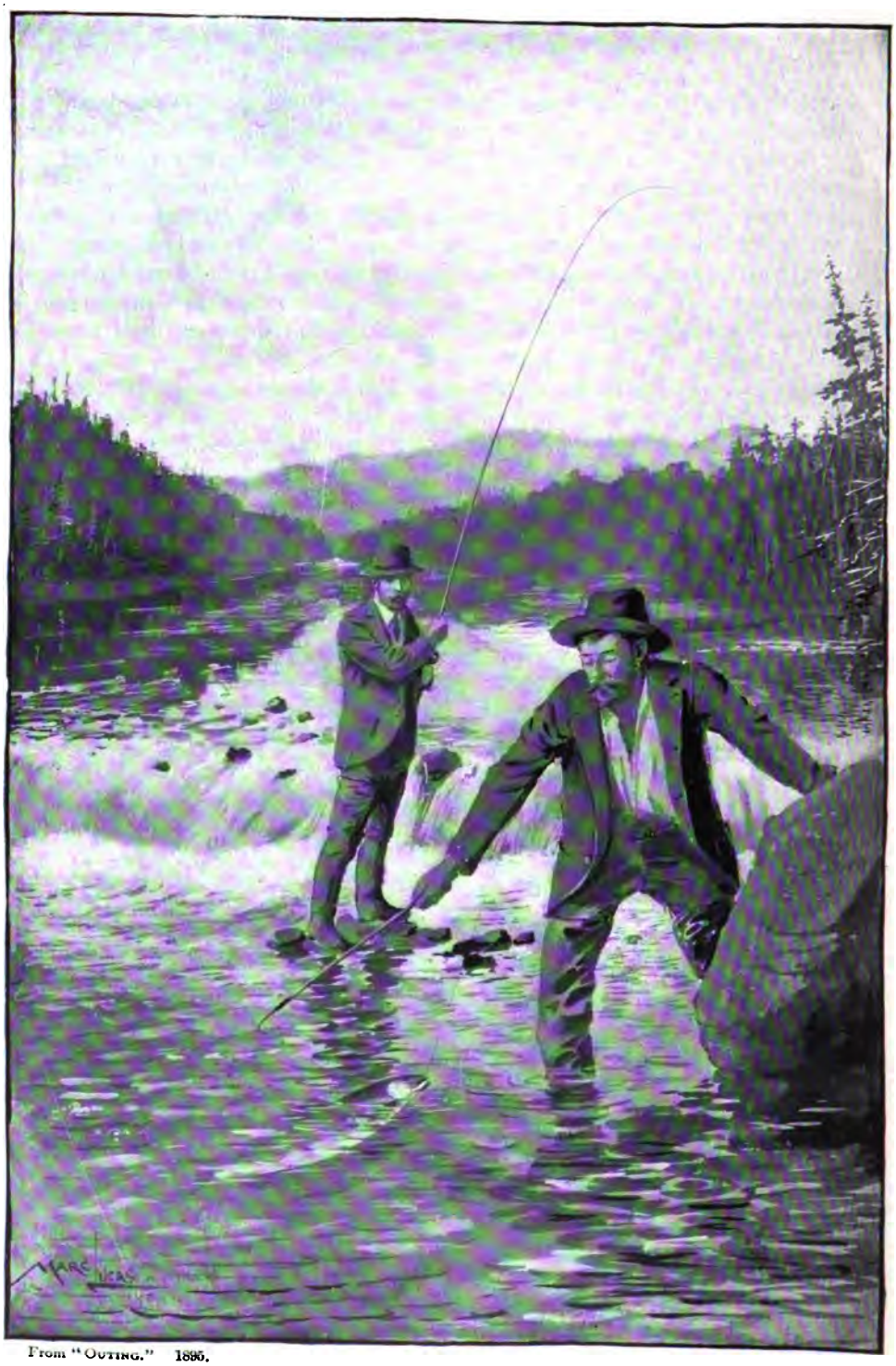
A long and tiresome journey, difficulty often experienced in securing competent canoe-men, the large lease bills, and incidental expenses, with poor fishing frequently, and consequent disappointment, prevent a large number of fishermen from entering into the sport; but still there are nearly every year as many rods as there is room for during the season on the best pools of any good salmon river. The salmon-fishing season in Canada is extremely short, owing to the long winters experienced there; the rivers being ice-bound for five or six months every year.

In Scotland, Ireland and England the fishing season opens at different times on different rivers. On most of the rivers it opens about February

Photo. by L. R. Howe.

LANDED.

1st, on some even earlier, and closes about October 15th. There is therefore eight months' open season out of the twelve each year, against only about two and a half months in Canada, although the open season begins May 1st and ends August 15th; very few fish are taken before June 1st. But it must not be supposed that the fishing is good on all Scotch, Irish and English rivers during the whole time that it is legal to fish for salmon. They have the spring run and the autumn run of fish; but there is a chance



From "Outing." 1895.

CONQUERED.

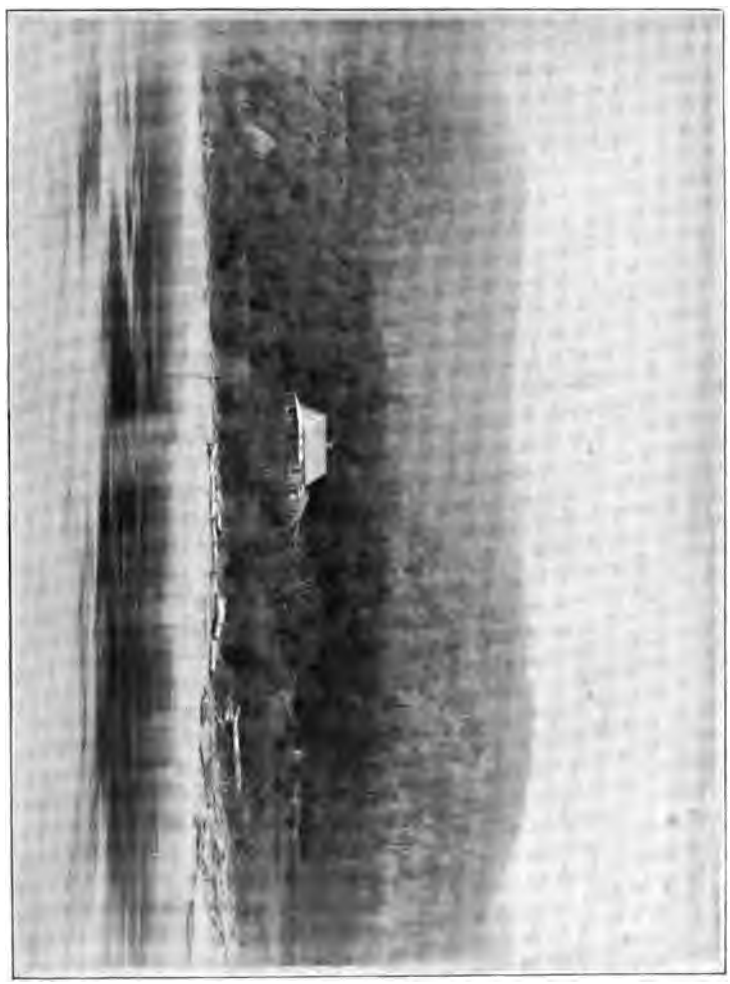
to get fishing at any time during the open season when the water happens to be in good ply. Conditions, however, vary on different rivers.

On October 15, 1895, the Marquis of Zetland killed a fresh-run salmon on the Tay which weighed fifty-six pounds. It was killed on what is known as the "Stanley water," owned by Col. Sandeman. This was the closing day of the season on the Tay, and His Grace must have felt that he made a grand wind-up, for it is rare that so heavy a salmon is killed on a fly.

The largest fish ever taken on a fly in Canadian waters, so far as recorded, was killed some years ago by Mr. R. G. Dunn, while fishing on the pool known as "The Salmon Hole," on the Grand Cascapedia river, P. Q. It is well known that this famous river, although not a large one, yields very heavy fish. In a good season they have averaged as high as twenty-nine and one-half pounds. Probably no other river in Canada can equal it in this respect.

The writer had an experience on the Grand Cascapedia several years ago, which will never be forgotten. It was early in July, the water was somewhat low and very clear. Thinking it was a good opportunity to try fishing with finer tackle, on the principle that "the finer you fish, the more rises you will get," a fourteen-feet split-bamboo Leonard rod, weighing twenty ounces, was rigged up with fifty yards of trout line, spliced to the salmon line and reeled into place, there being plenty of room for it, because a salmon reel is seldom entirely filled with line, for reasons well known to all salmon fishermen, and to this a twelve-feet leader of salmon gut, finer than usual, was attached, and a No. 6 fly. This made a fine light cast and one not calculated to frighten the fish in clear water. The next morning it fell to the writer's lot to fish the Rock pool, and, after fishing a few drops without a rise, the critical "lie spot" was reached, where something would happen if any success was to be met with at this time. After making a few casts and having only about fifty feet of line out, a salmon rose to the fly and took it; the moment the pull was felt the rod was raised and put under strain to set the hook, and the fish was on. As salmon usually do, this one took the first indications of danger somewhat coolly, he apparently did not realize just what was the matter at this stage. He swam playfully and leisurely up the river until he came alongside of the canoe, then made a great leap out of the water, as if desirous of seeing what was going on and noting the situation, but he was no sooner reimmersed in his native element than he turned and darted down river at a rate of speed seldom attained by such a fish. The battle royal was begun. The anchor had been taken in and the whir of the reel gave notice that agility was needed and that an exciting contest was at hand. Before any headway could be made by the canoe-men in following the salmon down river, the reel was more than half empty of the line. The strain soon after ceased, the slack was reeled in, and the result was a

THIRTY-FIVE SALMON, PART OF A THREE DAYS' CATCH ON GRAND CASCAPEDIA RIVER, P. Q.



LORNE COTTAGE ON GRAND CASCAPEDIA RIVER, P. Q.

Owned by Messrs. C. B. Barnes and Lyman Nichols, Boston.

broken leader and a lost fish. This experience taught me that the strongest salmon gut that can be found will not possess any more strength than is necessary to cope successfully with exigencies which are likely to arise on any salmon river where the fish average a large size.

Although the actions of salmon after being hooked are similar, still no two ever act exactly alike, and no one can tell just what a salmon may do after he becomes thoroughly frightened. What is there in the way of sport that will give one a thrill equal to the first rushes of a fresh-run salmon after he has become fast to the hook and realized the necessity of making a desperate fight for liberty?

But it should not be inferred from this that the writer advocates the use of heavy rods and heavy lines in fishing for salmon, for the lightest tackle that will hold, play and land the fish angled for, will always afford the greatest amount of pleasure and excitement, because of the tact and skill required in the sport.

Salmon can be killed, and killed quickly, on light rods, although heavy two-handed rods are used. During the past season a salmon was killed on a Canadian river with a split-bamboo rod nine feet long and weighing only four and one-eighth ounces. The reel used was a plain rubber click reel with eighty yards of fine trout-line. The fish weighed twenty-three and one-half pounds, which is a trifle over ninety times the weight of the rod, and it was gaffed in exactly twenty-seven and one-half minutes from the time it took the fly. This was accomplished on a part of the river where there is a strong current and at the same place where half an hour has frequently been spent in killing a fish on a regular salmon-rod weighing twenty-seven ounces, no heavier and no gamier than the one killed on the feather-weight trout-rod.

The question naturally arises, why was the fish not killed quicker on the salmon-rod than on the little trout-rod? Simply because the small rod was capable of putting a strain of three pounds on the fish by keeping the tip low and letting the strain fall on the lower part of the rod. The strain was kept more steadily on the fish than it would have been with a salmon-rod, and the average strain from the latter rod would not be any greater than from the former. The steady, never-let-up strain that clings is the one that soonest discourages and tires out the fish, and it was surprising how soon the big salmon began to weaken under the steady strain of the little rod.

But whether a light or a heavy rod is used there is health-promoting exercise and exhilaration in the sport. Angling for salmon calls out the sterling qualities of a man, and no other use of the rod and reel so tests his mettle or taxes his judgment; but commensurate with the tact and skill required to kill a salmon, is the satisfaction felt when the fight is o'er and the fish is landed.

TRIPLE PORTRAIT OF DR. JAMES A. HENSHALL, ENTITLED: "TELLING A FISH STORY." "HE WAS THREE FEET LONG"!

CHAPTER X.

His Excellency: The Black Bass.

By Dr. JAMES A. HENSHALL.

Author of "Book of the Black Bass," etc.

THE black bass is a cosmopolitan. No other game-fish is so widely distributed. Large-mouth or small-mouth, he now exists, naturally or by transplanting, in Canada, in nearly every State of the Union, England, Scotland, Germany, France, and the Netherlands. Originally a characteristic American fish, his range has been extended to wherever the gentle art of angling is known and practised.

The love for black-bass fishing is co-extensive with its wide and expansive range. The number of black-bass anglers at the present day may be reckoned by thousands, where trout fishers are counted by hundreds, and salmon fishers by scores.

The great popularity of the black bass as a game-fish is to be accounted for by its extensive range, its accessibility, and the freedom of its haunts from black flies, midges and mosquitoes, while the streams and lakes it inhabits are no less charming in their surroundings than the abodes of the brook trout or salmon. The evidence of this popularity is shown in the remarkable evolution of the tools, tackle and implements for its capture — the manufacture and sale of which far exceed those for any other game-fish.

My experience in black-bass angling embraces the cool and limpid waters of the St. Lawrence basin, and extends through the States to the sunny streams of Florida. And wherever found — in waters flowing over metamorphic or stratified rock, or glacial drift, down to those laving the recently formed coral rocks of the southern peninsula — he is ever the same brave, active, vigorous and courageous fish that "inch for inch or pound for pound, is the gamiest fish that swims."

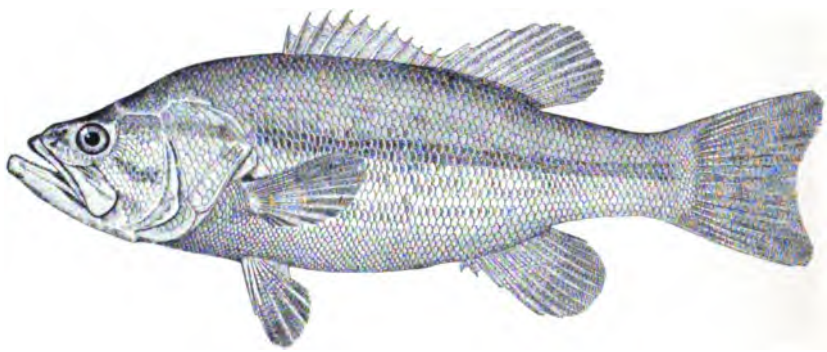
Black bass are more abundant in small lakes or lake-like streams, where the conditions favorable to their existence and increase are more constant and uniform than in swift streams, where they are exposed to the vicissitudes of freshets, droughts, and sudden changes of temperature which militate against their increase and interfere with their food supply. I have found the black bass more plentiful in certain lakes in Canada, Wisconsin and Minnesota, and in the quiet streams and lakes of Florida than in any other waters that lie between these geographical extremes.

From "Outing."

"Inch for Inch or Pound for Pound, is the Gamiest Fish that Swims."

All along the St. Lawrence basin in Ontario may be found lakes teeming with gamy bass of both species, and where the bait-fisher or fly-fisher can fairly revel in piscatorial delight. And the St. Lawrence itself, under the happy auspices of the St. Lawrence River Angling Association, is beginning to furnish good fishing and to remind old bass anglers of the once glorious fishing possibilities of the most beautiful river on the globe. Oh, the halcyon days of yore on its placid waters and along its green shores!

And I have found the noble bass as abundant and gamy under the pines and palmettos of Florida as in the shade of the firs and birches of Canada. I have had glorious sport with a hastily-tied fly of almost any color, or even with a bit of white or red cloth tied to the hook, taking them up to twelve pounds, and on one occasion, fourteen pounds.



THE LARGE-MOUTHED BLACK BASS.

The maximum weight of the large-mouthed bass in northern waters is seven or eight pounds, while in the Gulf States they grow much larger, and in Florida reach the enormous weight of twenty pounds. I think this difference in weight is accounted for by the fact that while both species of bass hibernate in the north, the large-mouthed bass (the only species in the Gulf States) is active during the entire year, with an abundance of food at all times — consequently this species is there of much larger growth.

A marked instance of the hibernation of bass may be found in Canadian waters, in the western part of Lake Erie, about Pelee island and the Bass islands of Put-in-Bay. The islands forming this bay have a sub-structure of cavernous limestone, while running out from them in various directions are reefs of this same cavernous lime rock. These reefs lie in from ten to twenty or thirty feet of water, and the small-mouthed bass of western Lake Erie hibernates in their convenient and suitable holes and crevices.

In the spring, usually in May or the latter part of April, the bass emerge from their winter quarters and linger about the reefs until the water increases in temperature sufficiently to enable them to depart for

their breeding and feeding-grounds. They are not seen about the reefs again until after several cold, northeast storms in autumn, when they again congregate about the reefs before going into them for their winter rest. This is usually in October or the latter part of September, and when the temperature of the water falls below fifty degrees the bass suddenly disappear into their winter quarters. This is a fact not generally known, the popular belief being that the bass frequent the reefs in May and September to feed and spawn. But this view is erroneous, as the bass do not spawn in Lake Erie before June or July, a month or more after leaving the reefs. They, moreover, spawn but once a year, and their breeding-grounds are on the gravelly shoals in the shallow water of the bays or tributaries. Then, again, there is no food for the bass about the reefs, crawfish and minnows being found only in the shallower waters.

The bass fishing about the reefs of Pelee and the other islands lasts from about a week to three weeks, both in spring and fall, though it is usually of longer duration in autumn than in spring. It ceases suddenly with the occurrence of a "hot spell" in May, and of a "freeze" in October; but while it lasts the bass bite freely, and in the spring, ravenously. This explanation of the peculiar features of the black-bass fishing about Pelee and the other islands was reached by me after investigating the matter for several consecutive summers, while fishing and yachting in those waters, and I am fully satisfied that the theory is a correct one.

On Pelee island, ten miles from Put-in-Bay, in Canadian waters, is located the club-house of a number of black-bass anglers of the United States, and of which my old fishing friend, Volney Turner of Chicago, was its president for several years. A number of other old fishing friends were likewise members, among them the late General Phil. Sheridan, and General Anson Stager. The club represents more wealth, perhaps, than any similar organization in the world. The house is quite spacious and comfortable, and the grounds and surroundings are very pleasant and beautiful, while the fishing in spring and fall is unexcelled.

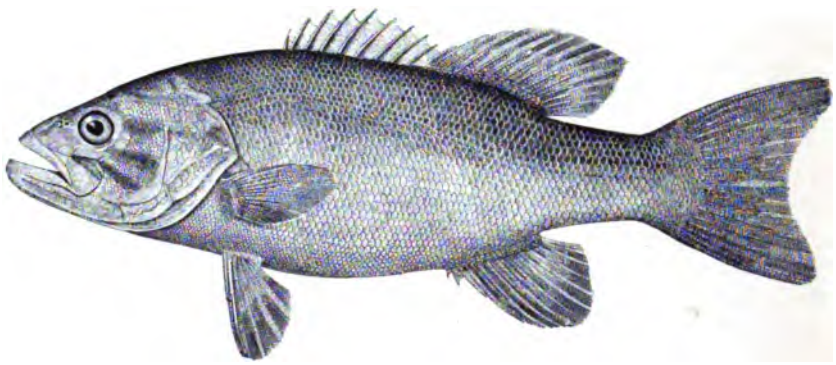
The reef fishing of Lake Erie presents, as stated, some unique and peculiar features. As the bass lie close to the reefs in from ten to twenty feet of water, it is important to get the bait (minnows) down to the rocks, and to keep it there, and for this purpose heavy sinkers are used, in a manner somewhat similar to that practised in the tide-ways of the coast in salt-water fishing. This necessitates the employment of a stiffer rod than is generally used in black-bass fishing, and as may be premised, there is no fly-fishing whatever. Some Lake Erie anglers attach one or two artificial flies to their line, above the baited hook, and after a bass has taken the minnow and rushes about dragging the flies rapidly through the water, they are often seized by other bass, but this is not fly-fishing.

A few years ago I devised a rod for this peculiar fishing, being a mod-

ification of the Henshall rod, of the same weight, but only seven and one-half feet in length, and in two pieces. It is admirably adapted to fishing with a heavy sinker, and is known as the "Little Giant" rod. It is made in split-bamboo, and also in ash and lancewood, by the T. H. Chubb Rod Company.

Black-bass fishing on lakes or lake-like streams that are not subject to sudden freshets is always better, as already stated, than on shallower, swifter streams where the water is liable to rise suddenly after a heavy rain.

The fishing is also more certain of good or uniform results on lakes and at almost any time during summer or fall, than on swift streams where the angler must wait until the water "is right" even though all other conditions are favorable. For this reason spring fishing on such streams is never so reliable as the autumn fishing, on account of the frequent spring rains.



THE SMALL-MOUTHED BLACK BASS.

There is one wrinkle in this connection that will be of use to many an angler if he is not already aware of it. I have often taken advantage of it to the filling of my creel when others on the same stream had very little "luck," owing to the sudden rise and roiling of the water after a heavy rain. It is this: when the muddy water comes rushing down, the current is strongest in the centre of the stream or channel, and is also muddiest, while along the shores the water will be comparatively clear or "milky" and the current not so strong,— little eddies often forming along the banks, and sometimes the water there will be almost still. The bass will naturally leave their usual haunts, under these circumstances, and keep close to the shores, when the knowing angler, by casting his fly or bait close to the bank can pick them out at the very edge of the water.

Another thing worth knowing is that all fishes feed mostly at night, and in shallow water about the shoals and close along the shores. Therefore, late in the afternoon or at night, if the angler wishes, is the very best

time for fly-fishing, as the bass are then approaching their feeding-grounds. On dark and cloudy days the same condition of affairs obtains to a modified degree, but on very bright, sunny days, with still and clear water, the bass retire to the deepest holes, whence the angler must try to coax them with bait only.

Some ten or twelve years ago when the Quebec and Lac St. John Railway was completed only to the Batiscan river, I went up that river, trout fishing, to a point a few miles from Lake Edward, and had royal sport, so-called, but the trout were too plentiful and totally uneducated. There was really not much sport, though the trout ran from one-half to two pounds, for they were too eager to seize the fly, no matter of what color or size. But at Lacs de Rognon, near the railroad crossing of Batiscan river, I met Captain Seaton, of Quebec, president of the club that leased these lakes. He showed me a basket of glorious trout, averaging five pounds, perhaps, that he had taken with the trolling spoon and a long line. He assured me that the trout of said lakes could not be induced to rise to the fly, giving as a reason that the trout were so accustomed to feeding on chubs, with which the lakes abounded, that they would not notice the artificial fly, much to the regret of the club members.

The true reason, to my mind, was that the water was so clear that the angler was always in sight of the fish, under which condition it is love's labor lost to cast a fly or bait during daylight; at night, however, I imagine that with a "miller" or "coachman" there would be a different story to tell, and that there would be but little difficulty in filling one's creel. Very clear water should never be fished except with a very brisk breeze to ruffle its surface, for obvious reasons.

The sight of game-fishes is very acute, the angler being always seen by the fish before he gets a glimpse of his quarry, and once seen he will cast his fly in vain so long as he remains in sight of the fish. I once saw, on Slate river near Gogebic lake, a large trout rise with open mouth to a field mouse swimming across the stream, and when within six inches of it he saw me watching him, he immediately closed his mouth and disappeared. I have observed similar circumstances time and again. I have had black bass seize my fly or bait numbers of times when reeling my line or retrieving for a new cast, and when it was but a few feet away, but suddenly seeing me they would eject the lure and quickly disappear. Black bass, while brave and gamy, are likewise cautious and wary. Several times I have had them take the bait or fly almost out of my hand, but they were hiding under my boat, and seeing nothing but the lure had leaped for it and hooked themselves before being aware of my presence.

The bass that is hooked always redoubles his exertions to get away after he has discovered the angler who has him in hand, and he always makes this discovery upon his first leap from the water, if not before. It is at the first leap that so many bass break away.

The most important rule in angling is to keep out of sight of the fish, yet it is one of the hardest to impress upon the beginner. It is the one text that I discourse the most upon, and it is the text of this article, and will ever be, not only of this, but of every article I shall write upon fishing. The angler who makes long casts knows that he is out of the visual range of the fish, and so is successful, or by concealing himself behind a tree or bush he can make shorter casts with almost equal success. Under the latter conditions I have hooked bass not ten feet away.

An Indian might sit at a hole in the ice all day without catching a fish, but by building a hut over the hole so that he is in darkness, or even by lying prone with his face to the hole and covering himself with his blanket, he is also in darkness and soon catches his fish. The child of Nature is wiser in these matters than his civilized brother.

Photo. by W. L. Underwood.

CANOEING IN A FOREST STREAM.

J. PARKER WHITNEY, BOSTON.

For Forty Years a Constant Visitor at the Rangeley Lakes.

CHAPTER XI.

Salmon Fishing in Salt Water.

By J. PARKER WHITNEY.

SINGULAR as it may appear, although salmon in countless numbers have undoubtedly for centuries made annual visitations along the strip of Pacific coast, a hundred miles south of San Francisco, extending from Santa Cruz and Monterey to Carmelo bay, no advantage had been taken of it in a sporting sense by resident or other sportsmen, until the writer in the summer of 1893, attracted by the quantity of salmon brought to market by the Italian and Portuguese fishermen, was led to investigate the source of supply. This led, after experimental efforts, to the adoption of a light and efficient tackle, from which was derived a sport of the most exciting character and of extraordinary success.

Little is known of the salmon after its exodus from fresh water. We all know the habits of the salmon after it returns to the stream where it was hatched, and where it playfully disports itself in the pools and running waters. It returns in its prime, fresh from the invigorating briny depths, and from the time it reaches the fresh water it goes without food, even for months, until it again returns to the sea, when lean and lank from its long fasting, it soon recuperates and adds fresh weight.

Of the spawning habits of the female we are familiar, also of the young life of the smolt or parr, which, remaining in the stream of incubation for from one to two years, takes to the sea, where it rapidly gains in weight, and returns the following year to the fresh water as the grilse, weighing from three to nine pounds.

But it has been a sealed book as to the life of the salmon in the sea, its wanderings, its habitat, its methods of feeding and varieties of food. How far it wanders away from its native stream, and its sea life we know little of.

We know the unerring instinct, so-called, which guides the salmon from his sea wanderings back through the pathless ocean to the pleasant pools of its infancy. But it may well be doubted if it is instinct which guides the salmon on his return, or if the sea is pathless. The scent of

the salmon family is keen, perhaps not surpassed by the most favored of the canine tribe. That sense of smell, which in animals so far surpasses that of the human race that it may almost be accounted a new sense with them, is probably possessed by the varieties of salmon, trout, and other fishes in perfection; and it may reasonably be presumed that the outreaching odors of streams, each peculiar and distinctive, extend by the currents of the ocean for perhaps hundreds of miles from the shores. These currents, permeated more or less, constitute to the denizens of the deep, routes as familiar, perhaps, as landmarks on the shore are to the animal race.

To those interested in the king of fishes, the salmon, the harbors of Monterey and Santa Cruz present an opportunity of peculiar interest. Here the salmon is found in pursuit of its natural food, and exhibiting many features which give an insight into the ways which have been so mysterious before.

As an old fisherman with many years' experience with salmon and trout, I am struck by the similarity of the two fish in feeding, — the salmon in salt water, — in the method in striking the bait, and of following it up, and in other features which would have attracted my particular interest, even if I had not known of the existing relationship. Almost yearly the salmon come into the Bay of Monterey, as well as that of Santa Cruz, and a few other places on the coast, where they sometimes remain for months, and pursue their feeding as other fish do, and where they are readily caught with fresh-fish bait.

When the salmon strike in about the bay, and generally near the shore, which occurs here about the 10th of June, they do so in the pursuit of squid, sardines, anchovies, smelts and other small fish, and their presence is first indicated to the fishermen by the occasional disturbance of the surface-water by the small fish in their efforts to escape. This is a signal for the Italians, Portuguese, and other market-fishermen to go out for them, which they do in both sail and rowboats. These men all fish for the market, and waste no time in sentiment. They are equipped with stout cotton lines sufficiently strong to pull in salmon hand over hand. A stout sea hook is used, with a sinker weighing half a pound. The line is about 200 feet in length, the sinker is attached a short distance above the hook, and the line is payed out about 100 feet from the boat, and in the slow sailing or rowing, which is about the same speed as followed in trolling for trout, the bait sinks down twenty odd feet. The sardine, or small fish, if not too large, or over six inches in length, is put on whole, otherwise it is cut diagonally, making two baits. The salmon seizes the bait and hook, and is pulled in alongside the boat without ceremony, where it is either yanked in or gaffed. Fully half of the salmon hooked are lost by the careless

manner of handling, and about two baits are stripped to a salmon hooked.

My fishing was done with a light ten-ounce steel rod, eight feet in length, a multiplying reel, with 600 feet of fine twenty-strand linen line. I found it, notwithstanding the prejudice I had against steel rods, to be almost perfect for the fishing, and altogether superior to bamboo rods. It is lighter and more flexible, and I would have no hesitancy in taking a trial with it over a sixty-pound salmon, or a sea-bass of the same weight. The market-fishermen, as I have previously observed, lose fully half of the salmon they hook by the hand pull, which has no give except that which is compelled by want of strength. The line and hooks are strong, and the fishermen have no time to wait. If the salmon are plentiful they do not much mind the losses, which often occur from neglect in using the gaff. With the light rod the fish, if hooked, is seldom lost. I brought in several with skin-holds, which would not have held for a moment in hand-fishing.

The average time I found necessary to fetch my salmon to gaff, I should estimate at ten minutes, occasionally less, and sometimes fifteen or sixteen minutes. I believe, however, I am more rapid in landing salmon and trout than the average fishermen, many of whom take more than half an hour with a salmon, and ten or fifteen minutes with a two-pound trout. I have never, except in very rare instances, been more than half an hour in landing a salmon with a fly-rod, and though I have taken, I may safely say, during over thirty-five years of annual trout fishing, many thousands of trout weighing from two to over eight pounds, I have never to my remembrance been so long as thirty minutes in landing a trout, unless it was hooked by an outside hold.

I found the salmon which exhibited the most gamy qualities, to do their fighting near the surface, seemingly to disdain any depth after once being brought up, and often to make an almost complete circuit of the boat. Certainly a more beautiful sight than a salmon exhibits with his brilliant colors, as he strokes along with his powerful tail, near the surface in the clear water and bright light, never gladdened the heart of a fisherman. We all know the dangers to which the salmon is exposed in fresh water, and from which but few survive, as it is doubtful if but very few, if any, ever return from the upper streams, which they ascend after the spawning season, at least when such upper waters are far removed from the sea. If they have the exposures in the deeper waters of the sea which follow them in the shoal water of Monterey bay, their lives are indeed beset with constant risk. I saw daily in the bay on the fishing-grounds the enemies and consumers of salmon, in the form of seals, porpoises, sharks and cow-fish at their deadly work. One foggy day when I was out, I was startled by the uprising of a curiously-peaked hump, two boat lengths ahead. It seemed to me like a boat's end elevated, with a black cloth over it, but a

moment later revealed the half of an enormous bewhiskered sea lion which, raising itself half out of the water, revealed a form which must have weighed at least a ton. In its mouth was a large salmon, which it had evidently just caught. The insatiable appetite of these monsters of the deep, of which hundreds abound in the vicinity, would indicate that they are not slow to avail themselves of the salmon invasion.

On the Pacific coast there are five distinct varieties of salmon, some of which are not highly esteemed for food.

Those of Monterey bay are of the highest class, the king salmon, or quinnat (*Oncorhynchus tschawytscha*). These are of the Sacramento, San Joaquin and Columbia rivers. As an article of food they are probably of more importance than all the other fish of the Pacific coast.

In the Columbia river the average weight is twenty-two pounds. In the Sacramento river the average is sixteen pounds. Occasionally salmon are quoted of from sixty to one hundred pounds. In addition to the enormous quantities which are seined on the coast and in the rivers for immediate eating, there are annual packs from the Sacramento, Columbia and up the Yukon of fully 1,500,000 cases of forty-eight pounds each, representing an annual pack of more than 70,000,000 pounds, or some 4,500,000 fish. There is no apparent diminution in quantity, and the pack of this year, 1897, has increased to the enormous extent of 3,000,000 cases of 144,000,000 pounds, or 9,000,000 salmon. The other varieties of salmon are known as the blue back (*O. nerka*), weighing from five to eight pounds, which predominates in the Fraser and Yukon rivers; the silver salmon (*O. kisutch*), weighing from three to eight pounds, which is found in nearly all of the northern salmon rivers of the coast; the dog salmon (*O. keta*), from eight to twelve pounds, found in the Columbia and Fraser rivers, and the humpbacked salmon (*O. gorbuscha*), found in the northern streams. The latter is the smallest salmon on the coast, seldom running over three or four pounds. The salmon of the Pacific coast differ but slightly from the general salmon family, the difference being in an increased number of gill rakers, as well as glands about the stomach, and the number of rays in the anal fin.

The quinnat, or king salmon, is as perfect in form, color and activity as any salmon could possibly be. Its silvery gleaming is as brilliant as any of the salmon family. On the side of the head it has a distinctive coloring, a peculiar metallic lustre of a pale olive cast, like that which might arise from a mixture of lead and silver, highly burnished. A feature which has strongly attracted my attention has been the changing colors of the quinnat in salt water. With every changing angle of the sunlight the flashing, iridescent hues have varied with kaleidoscopic rapidity, from the deepest olive green to a light green, and a gleaming white to a silvery, and

from a dark brown to black, and then so neutral as to be lost for a moment from view. Changed indeed are the salmon, or the few which survive to return from the spawning season in fresh water to the sea. From the day of estuary passage, a falling off in every respect commences. Food is no longer sought or taken. The silvery sheen and iridescent hues slowly disappear. The stomach and its auxiliary glands shrink away to one tenth of the normal size. The color gradually changes to black. The flesh becomes dry and insipid, and if the fish ever returns to the sea after a long passage to the headwaters of its stream, it comes in a sadly demoralized condition, with its fins and tail worn away, bruised, blotched, distorted, and often blind. It is not probable that the salmon is a very deep water fish, or that it goes far from its native stream, but it seeks its food from the small fish which keep the vicinity of the shores. The fact that they are seined every month of the year on the Pacific coast, to a considerable extent evidences this.

It is clear that the salmon of Monterey bay are those which belong to the Sacramento or San Joaquin river group. Their average weight confirms this, and that they are not of the Columbia river. The distance from Monterey bay to San Francisco bay, into which the Sacramento and San Joaquin rivers pour, is about ninety miles. Monterey bay and that of Santa Cruz, a few miles north, and some of the sounds and bays north on the coast, are the only places known where the salmon is found engaged in taking his food, and where it can be caught with fresh-fish bait. It certainly presents a favorable opportunity for studying the salmon in its normal condition, in its prime, engaged in seeking its natural food. Here its manners and peculiarities can be examined with ease and some knowledge obtained of the class of food upon which it best thrives. All this can be obtained and the salmon brought to gaff in his superior condition before the advanced condition of the organs of reproduction have reduced its delicious flavor or weakened the vigor of its efforts.

It may be claimed by those fishermen who are so wedded to the artificial fly that trolling with a spinning anchovy or sardine is not the proper deceit for the king of fish; but it may be a question if such a view is not of the fanciful and fantastic order, rather than the opinion of the experienced all-around fisherman, who, disdaining an unfair advantage over his game, does not decline the use of a lure which may to an extent compensate his victim for the risk which it undergoes.

SEVENTEEN SALMON CAUGHT AT MONTEREY, CAL., IN ONE DAY BY J. PARKER WHITNEY, WITH A TEN-OUNCE ROD. WEIGHT, 274 POUNDS.

None of the Pacific coast salmon take the fly; this is unusual and unfortunate. There may be isolated cases of their taking the fly, but they are few and far between. Grilse are taken readily in San Francisco bay with shrimp and other bait, and a few salmon are taken with roe bait in the rivers, and the fly-fishermen's labor is lost with the salmon of the Pacific; but the sea is open to their taking when the salmon is in a higher condition than he is ever found in the fresh-water streams, and when his game qualities are at the best.

The best fishing I had was at the Bay of Carmelo, eleven miles south of Monterey. The early fishing is far better than that of any other part of the day, unless it be that of the late evening, and upon all the excursions I made, over a score in number, I did not in any instance commence fishing later than five o 'clock, and almost always quit at half-past ten, although in two instances I fished straight through the day, having been encouraged by the holding on of the fish. Upon these two occasions I made notable catches. How distinctly the salmon in the sea is a nocturnal feeder I cannot say, but from what I saw of its food-seeking before night, and sometimes far into the twilight, I am led to believe that, like the trout, the salmon is a nocturnal prowler and feeder. An hour before sunrise is better than any two after, and the salmon commenced feeding earlier than I was able to get after them, although at times I commenced fishing when the daylight had hardly begun.

On one trip to Carmelo bay, I witnessed a remarkable condition. It was scarcely dawn, after my drive of ten miles in the dark from the Del Monte Hotel to my boat, where my men were waiting. The morning was warm and breezeless, and the glassy sea was without a ripple. The long green waves in their weary passage from the Asiatic coast were about to feel their first check on the California shore, and in those moderate swells were thousands upon thousands of silvery, glistening salmon, full of lusty strength, eagerly pursuing an immense mass of anchovies which, scattered and demoralized, were vainly seeking escape. A few pulls at the oar brought the boat from its rough, sheltering, rocky wharf into the midst of active life. The water was clear and attractive in its bluish-green hue. Down many feet could be seen the silvery anchovies scattered here and there, and easily followed by their slight but flashing brightness. Among the anchovies were the salmon, seeming at play, but with a play as wanton as that of the tiger with its victim well in the thorny clasp. Within an area of a few acres were half a dozen breaks and swirls at the instant, and this continued for the space of half an hour or more, until the anchovies had passed away from the immediate vicinity of the boat, chased on toward the combing waves of the beach to the right. Blue flashing streaks occasionally passed near the boat a few feet below the surface, which were

salmon in passage, and now and then a salmon broke fairly out of water, not with the playful leap as seen in the fresh-water salmon pools, but as the trout breaks from one wave to another in headlong flight. Only once did I see a salmon come up vertically, head on, and that occurred within two feet of the boat. He was bold and vigorous. He came up with a rush from below, undoubtedly for anchovies above. It was an exciting moment, for I had a salmon on at the time, which was wild with fight, and it seemed to me that the leaping salmon would come into the boat. As I fought my salmon to gaff, which had struck my bait as I was bending on my sinker-line forty feet from the hook (which, however, was fully completed), and which carried out my line fully 300 feet on the first rush, but which I brought around in ten or twelve minutes, my sinker was caught by another salmon as I was lifting it clear from the water to detach as usual from the boat side, and carried it off. This was within six feet of the boat, and I plainly saw the rush, the open mouth, the strike and the tear away. The sinker-line fortunately broke, leaving my half-exhausted salmon on my hook line, which I safely brought in. Striking at the sinker is by no means rare with the salmon, this being the third I have had carried away, and I have several times seen the salmon strike the sinker within six or ten feet of the boat, and strike at it several times in rapid succession, and am quite sure that with a hook bent on the sinker end, I would occasionally hold a salmon, but the rush of fishing has been on so strong that I have had little time to experiment, and I have been quite satisfied to hold a single salmon with its vigorous life and game fight. I am confident I could get doublets, and even triplets if I chose, but when the salmon are as plentiful as I found them on the occasion I have referred to at Carmelo bay, I am sure that by having my leading line sufficiently strong with its hooks to play the salmon off against each other until exhaustion occurred, I would be enabled to bring them to gaff. I am sure they could not run so far as a single salmon, and it would, with proper care, be but a question of time in fetching them up to the surface and boat. I am sure, also, they could be brought around with the light steel rod of ten ounces, which I used, slowly but surely, by right management of the boat. Upon the occasion referred to I dispensed with my sinker after the first fish, and had my bait of fresh sardine taken about as fast as I could get it out. I have always considered the playing of the salmon as a period of great satisfaction, but this time, with the salmon so plentiful about, I could but begrudge the enduring vitality of my fish. I saw the following in the clear water of several salmon at a time after the bait, when the envied and successful striker left his comrades to seek other and less dangerous lures. There was no difficulty in following the school, although the ruffled water made the surface breaks less conspicuous, for the friendly shags, murres

and gulls came in for the harvest also, following up the salmon breaks for the demoralized anchovies, which, driven to the surface, fell readily to the bills of the birds.

So on to the combing beach went the anchovies, the salmon, and the birds, and less slowly my boat, impeded by the necessity of fighting hooked salmon. But we followed on, finally, into the jaws of the ground swell, where for half a mile in length, on the shore, the salmon held the anchovies for at least two hours. Back probably from the advancing file of pursuers, were other contingents of breakfasting salmon, and no cessation of quick biting occurred until the sun was an hour high. Then the salmon fell back into deeper water, but, in fact, large numbers had been there all the time, and by noon I had seventeen salmon in the boat. For an hour or two after eleven I trolled with but little success, getting quiet strikes and bait-strippers, and losing several good fish. At one o'clock more vigorous striking commenced, and by five I had twelve more salmon in the boat, making a total catch of twenty-nine, which weighed 512 pounds. I was satisfied and had my glut, and a carnival of fishing I am sure I shall not soon see again.

My largest fish of the day was thirty-three pounds, and the smallest, thirteen pounds, and the average, seventeen and one-half pounds; somewhat larger than the average of my whole fishing, which has been about seventeen pounds. The salmon came in about June 10, and my fishing was from the 20th of June to the 30th of July, during which period I was out twenty-six times, taking 209 salmon, weighing a total of 3,568 pounds. My largest salmon was forty-five pounds, which required twenty-six minutes to bring to gaff. On the day of the large catch I lost twelve fish which had been hooked and played from five to fifteen minutes. Ten I lost from the hook; one, and the only instance I have had occur, ran all of my line and parted it, despite my greatest exertion, and another sprang out of the boat, a thirty-pounder, after being gaffed and brought in, before receiving the usual quietus of a blow on the head.

I observed at times large masses of shrimps in the water, which are probably much more plentiful on the Pacific coast than elsewhere; and I have seen the salmon with open mouths passing through them, and have, in the examination which I have made of the stomachs of the fish, found them, at times, full of shrimps. I have found in the stomachs a great variety of small fish, more squid than anything else, next, sardines and anchovies, with smelts, tomcods, shad, and varieties of small rock-fish, and my opinion is that the salmon is an indiscriminate feeder on any small fish which he can swallow without mastication.

WARREN HAPGOOD, BOSTON.

CHAPTER XII.

BRANT AND BRANT SHOOTING AT CHATHAM, MASS.

By WARREN HAPGOOD.

Ex-President Monomoy Branting Club.

ALONG the shores of New England is a variety of swimming birds, *Natatores*, which afford to the sportsmen a fair amount of pleasure. Among these, the black duck, *Anas obscura*, while not the largest, is most eagerly sought, especially for its fine edible qualities. It is regarded as a migratory bird, but still some do linger about the estuaries and inlets of Cape Cod and a few other places where they can get food and fresh water, all winter. When they first arrive from the fresh-water breeding and feeding-places, their flesh is pronounced equal to any other duck, — always excepting the famous canvas-back, — but in midwinter, when they are restricted by the ice, in their food, to periwinkle beds, they are slaughtered in great numbers, and this, too, at a time when they have rapidly lost flesh and flavor and are almost worthless.

The eider-duck, *Somateria molissima*, is much larger, but as its food is mostly molluscous, its flesh is ranked low for table use, like that of the coot. The latter, for the mere pastime of shooting, affords as fine sport as any of the duck species, but to the epicure it is of little value. The Canada goose, *Anser Canadensis*, is about the largest of the edible class and is really fine eating, but the birds arrive late, tarry but a short time, and that at uncertain periods, so as to render their pursuit a very dubious business. Arrangements are made at certain ponds, where the geese resort for food and rest during the long journey from their breeding-grounds to their winter quarters, so that flock after flock is entirely annihilated. Of all the birds that visit our coast, I presume the brant goose, *Bernicla brenta*, is the most numerous as well as most valuable, in a culinary sense, and affords good sport to those who have found time and opportunity for the pastime. They pass the winter mostly in the waters of North Carolina, feeding on marine vegetables, principally eel-grass (*Zostera marina*), and barring the spicy flavor of the flesh of the canvas-back, they are, when in good condition, regarded next in value to that incomparable duck. About the latter end of winter or in early spring, they start along northward and

arrive at Cape Cod in considerable numbers, if weather permits, in March. From time immemorial they have rendezvoused at Chatham bay, to wait for the sun and south wind to clear the ice and open the way to their Arctic breeding-grounds. By the end of May they have departed from the cape and assembled on the northern and eastern shores of Prince Edward's island in vast hordes. Early in June the vanguard of this immense host begins to wing its way northward, not by the shore line and Labrador coast, but to the eastward of Anticosti, Hudson's bay and King William's land, and by the tenth of that month nearly all have departed. No human being has ever set foot upon their vast polar feeding and breeding-grounds save, possibly, the great aeronaut, Prof. Andree, during the present season. If he has been so fortunate, I venture to predict he found a warm climate in summer, and many islands with marshy shores and shoal water where eel-grass and other marine vegetation, upon which they feed, is abundant. They are not divers, and do not feed where food is beyond their reach from the surface. It is improbable, nay, impossible for these birds to dwell in a region of perpetual ice, or to lay their eggs, incubate, and rear their young in such a country or climate. It is absurd to suppose that the circumpolar region is capped by ice 500 feet thick, or of any thickness. Here are millions of these winged voyagers who have spent the summer there, and brought out their vegetarian families as witnesses to testify as to the climate and its products. The process of hatching and fledging the goslings sufficiently for the long journey out would require about three months, and if they are not fully fledged by the third to the tenth of September, when the young ice begins to make, they must be left to perish. Nor can they tarry long at Prince Edward's island on the return voyage. A few weeks to recuperate and they are again seen in their winter quarters in Pamlico sound. The long journey from the Arctic to near the tropics leaves them in poor condition, and they are not much sought at this season by gunners or epicures. In fact, the birds do not touch the New England shores except by stress of weather, on the return voyage, but keep off and hurry on to more genial climes. It is, however, a small loss to the gunner, as they are then poor and unpalatable.

The mode of capture of these birds at Chatham is somewhat peculiar, and the location is especially adapted to the mode. Chatham bay is mostly shoal water. On the east are the Great Flats, bare at low tide, but overflowed at high tide to about twelve to eighteen inches. To the eastward of the flats was the channel, once a ship-channel, but at that time filled with eel-grass, the most attractive food for the brant. This channel was protected from the ocean by Nauset high beach. In order to get at this luscious food the birds, at each flood-tide, had to pass over the flats. At favorable points on these flats the shooting-boxes were located and the bars made. A water-tight box, say five and one half feet long by

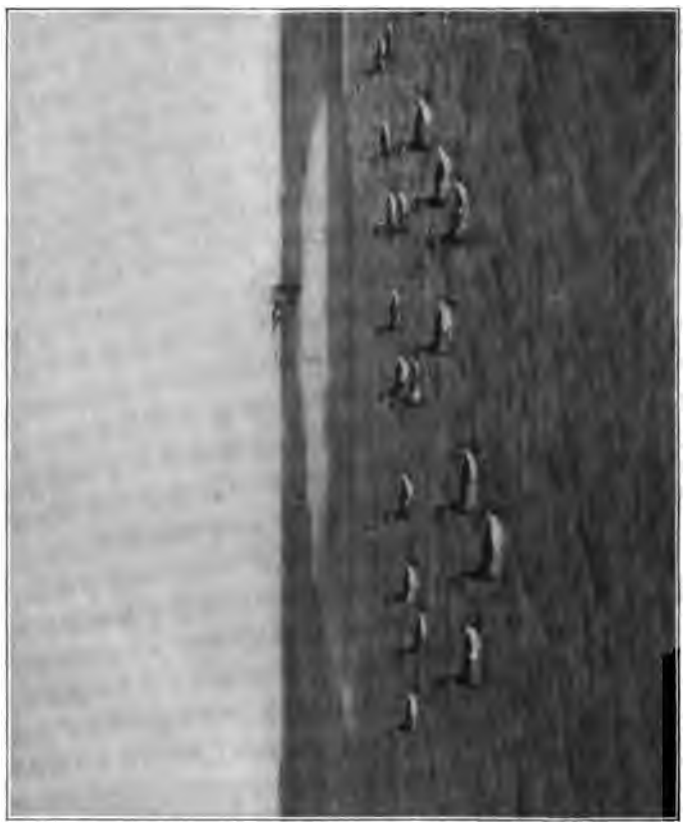


Photo. by Wm. A. Cary.

BRANT DECOYS AND SHOOTING-BOX IN SAND.

two and one half deep and wide, about one half buried in the flats and the other half concealed by sand wheeled up around it with a bar twenty or thirty feet long extending out on one side for the live decoys to stand upon, constituted a shooting-box. As this sand has great mobility under pressure of wind and water, a bar built to-day might be washed away to-morrow. To prevent such calamity a canvas cover should be drawn over it and fastened in the sand. A natural bar is regarded as more successful than canvas. These boxes are calculated for a guide and two gunners. Live decoys are obtained by capturing those birds that are only wing-tipped by shot. The broken tip is amputated, the captive fed on corn, and the next season performs duty as a decoy. During the season the decoys wear fetters to which a line is attached, and placed in the hands of the guide for control. The wild birds, in crossing the flats, catch sight of the traitorous decoys, who demonstrate joy, and alight. The shooting is done from about half-flood to half-ebb tide. Over a hundred have been killed in a single tide, but this was quite exceptional. The writer was one of the trio that did this work, and the gunner of to-day will smile when we inform him, as the birds weighed about three and one-half pounds each, we had more than we could tote home. About ten years ago the sea broke through Nauset bar, removing it into the channel, thereby ruining the commerce of the town as well as that part of the feeding-ground. A few years before this calamity some parties came upon the flats and introduced wooden decoys; while these imitations were not as effective as live birds, it rather revolutionized the method of shooting. Up to that time the brant would alight on the water and swim up to the live decoys, and sometimes cover the bar. As many as forty-four were killed at a single shot. Now, most of the birds are shot on the wing. Under the new régime of canvas covers and wood decoys, much less bags are made, but this rule will apply to most other shooting, though brant have held their numbers better than many other game-birds. Before the use of wood decoys was introduced, a string of three decoys was customary, but since, only two are used.

About the year 1855 it was my good fortune to be invited to participate in the shooting of brant at Chatham. I freely admit that I did not then know what a brant goose was. I also discovered that most of the sportsmen of that day were no wiser than myself. In fact, fifty years ago the bird was known to but few gunners, or even epicures. The excellent quality of its flesh became gradually known and appreciated, and to-day it is freely sought by sportsmen and *bon vivants*. I cheerfully accepted the invitation, provided myself with a suitable outfit, and reported for duty. The shooting was superb, and I enjoyed it hugely. The camp and accommodations were simply horrid. We occupied a clam shanty and slept upon the soft side of a board, with sea-weed for a pillow. The bill of fare was of the most frugal character. The invitation was extended and

accepted for several years. The quality and quantity of birds became known, and the pressure from other gunners became great for admission. For many years gunners from Orleans shot together with the Chathamites. At length a schism arose between the Orleanists and the Chathamites. Here was an opening, an opportunity for the outsiders. In 1862 a club was organized by the writer and Mr. Alonzo Nye, the recognized leader of the Chathamites. The new club was christened "Monomoy Branting Club," and was to consist of fourteen non-resident and four resident members. The resident members were to do boating, build bars, etc., and the non-residents to pay bills, etc. We drew up a form of constitution and by-laws, and I served as president and manager for thirty-four years, retiring late in 1896. At the time the club was formed, a new shanty was built and things assumed a more comfortable aspect. A few years later an enlargement was called for; the capacity of the shanty was doubled, and the club had good shooting and it prospered. Soon after, another club was formed, which later on was known as the "Providence Club." A few years afterward a third club, the Manchester, was formed, with boxes in proximity, which did not tend to produce harmony, and finally, in the interest of peace, the three clubs were merged in one under the rules and management of the Monomoy. The triple alliance proved satisfactory and brought peace to the clubs, and good-will in the camps. In the earlier stages of development of the Monomoy Club, the accommodations were so limited that weekly parties of only four could be admitted, but with the addition of the Providence and Manchester club-houses, weekly parties of eight were accommodated with both box and sleeping-room. These, with the four resident members, a cook and boatman, made our regular crew fourteen. The season embraced the time from about the 20th of March to the 1st of May. From the first organization of the club, a journal was kept, in which was recorded, each day, the temperature, tides, wind, weather, number of members and invited guests present, the boxes they occupied, with number of brant killed at each, together with any incidents worthy of remark, such as a severe storm or gale, shipwreck, great flight or scarcity of brant, etc. Sea-fowl, other than brant, were not always noticed. This journal, of which the club has three volumes, may be of no great value, but it is convenient for reference, and often proves quite interesting. It has often been affirmed, by persons competent to judge, that the Monomoy Branting Club has the most complete record of any sporting club in this country. The journal shows a total of 9,048 brant killed during Hapgood's thirty-four years of management.

Major FRED. MATHER.
Formerly N. Y. Fish Culturist.
Author of "Men I have Fished With," etc.

CHAPTER XIII.

We Boys in Winter.

By Major FRED. MATHER.

JUST half a century ago I was a boy of fourteen. That 's not so very long a time, as I look back upon it and think of the fun we had. Somehow the boys of to-day don't seem to get as much out of boyish life as we boys did, at least they do not have so much fish and game near the large cities as we found. In early spring we would often take more perch, pickerel and other fishes than we could carry home, and then came the flight of wild pigeons, now gone with the herds of buffalo before the destructive methods of the netter for shooting-matches, and the skin hunter.

Fish and game were plenty then as compared with that of to-day, in the same locality, near Albany, N. Y., and we boys contented ourselves with fishing during the summer, after the pigeons and ducks had gone. The fall months were divided between fishing and the shooting of pigeons, ducks, rail, shore-birds and squirrels. I had read of the big game in the West, and a few years later went for it, and came back to the old grounds disgusted with the butchering of the buffalo which I witnessed, and the death of one individual, I am glad to say, is the extent of my responsibility for their extermination. My early disposition to wander has broken out now, and I will go back to boyhood's days, where I started.

John Atwood was a long-legged village boy who was a couple of years older than I, and who knew every swamp and thicket, stream and lake, for miles around. John much preferred tramping the woods to going to school, and I looked up to him with admiration. When the suckers ran in the spring John taught me how to snare them with a copper wire; when the snow fell he showed me how to take a rabbit with a spring-pole, or in a box-trap. These things were not forbidden by law in the time of which I write, and I thought them the highest form of sportsmanship. We boys measured a sportsman by the amount of game he killed; to-day we call him a "game hog" if he kills too much, or kills it by spring-poles or box-traps. Pardon me, I will again try to get back to the starting point.

A few freezing nights had come and some of the more venturesome boys had tried their skates on the small ponds, for the Hudson was yet unfrozen. John Atwood said to me: "You dassent go down to Kinderhook lake and fish for pickerel through the ice." We made no distinction

between pike and pickerel then, as many do not to-day, but the little six-inch fellow with vertical bars on its sides we called "brook pike." The six-pound fish with network on its sides and the big fellow with white or yellowish spots, were all dubbed "pickerel."

"How far is the lake"? I asked.

"Only about a dozen miles down the B. & A. track, and we can do it in four hours with our camp on our backs. Will you go"?

"Yes, if you know how to camp out in winter and are sure that we won't freeze to death. When will we go"?

"To-morrow; we must go before the ice gets too thick. When it is about four inches it bears well and cuts easy, for we may have to cut a hundred holes."

We arranged all the details, and two boys started on a cool morning, the day before Christmas, with a light tent, small axe, frying-pan, a single-barrelled pistol, and what we thought to be the proper amount of bedding, provisions, and equipments for a week in camp. I proposed that we take along several pounds of alum and salt to tan our deer-skins, but John said they would keep in cold weather, and there was no use in taking useless things. When I suggested some antidote for snake bites John gave me a look, and said: "Snakes don't run in winter, through the snow"; and I bowed to his superior wisdom. We had hatchets, hunting-knives, and knapsacks of enamelled leather to keep our provisions from getting wet; and away we went. How jolly it was for the first two miles down to Teller's woods, where we rested. My shoulders then seemed to have an ache as they were released from the backward strain of the knapsack, but oh, how sore they were when we reached the lake, long after noon! If there had been tired legs and strained shoulders they were forgotten when we threw off our packs beside the lake, and with an appetite a dozen miles long, and of unknown breadth, we fell savagely upon our provisions. John's mother had put him up some corned beef, sausages, and cake, while mine had provided boiled ham, bread, and baked beans.

In later years there have been formal dinners where there were waiters behind the chair, who saw that a portion of currant jelly was served with the venison chop, and that the glasses were kept filled. To-day I enjoy that — then I did not know it; but that luncheon on the shores of Kinderhook lake, over half a century ago, is remembered with pleasure to-day, while greater ones have been forgotten.

By the time the tent was pitched, wood gathered for a fire, and bed made, the sun had gone down. We had removed the snow, covered the ground with spruce boughs, spread our blankets, and after another supper, we talked of the morrow and turned in. If we had been sleepier than we were, after the hard day's tramp, the novelty of the situation was enough to make two green boys wakeful, and then the twigs which we had left on

the boughs asserted themselves and prompted frequent changes of position. We were cold. Our tent was of the "A" form, the only kind we knew, and we had closed the front. A tent of that shape does not reflect the heat on the sleeper, and John got up and opened it, but it was little better.

I resigned myself to the cold, as an inevitable thing in camping, and had no idea that any one knew more of woodcraft than John Atwood, for when I had suggested that I could kill a red squirrel that sat on a fence as we came down, he said: "You must not shoot now, it would scare the deer"; surely John was an ideal woodsman.

All these things ran through my brain while trying to sleep. The pistol was near my head; it was a single-barrelled horse-pistol, flint-lock and muzzle-loading, and had in it four buckshot for deer, and a lot of No. 8's, for small game. John was asleep, and I was cold. Would morning never come? I crept out softly and put more wood on the fire, and warmed myself a little. The moon was full and overhead. Pshaw! It was only midnight, and I doubted if morning would ever come. I walked out into the woods, first seeing that the priming in the pan of the pistol was in order, if a bear should cross my path! If one did, it would be my bear, and then I was puzzled to know if I should have the skin made into an overcoat for myself, or into a rug for mother. I crept behind a large oak to watch for big game. After the noise of my footsteps in the crunching snow had subsided, the stillness was oppressive. The clouds sailed under the moon without a sound. The moon cast strange shadows on the snow in the woods, forming strange shapes, and my next sensation was one of fear. If I turned back to camp, all the bears, panthers and wolves in the forest might be upon me, and I resolved to go home in the morning. Camping was all right to read about, but I knew more about it now. I was on the point of firing the pistol and calling John, when another thought came. What if there were no monsters actually near, and John should laugh at me and tell the story. That thought prevailed; the dread of ridicule gave me courage, and now, half a century later, I am willing to say that a similar feeling has sustained me when death was in the air, in the shape of singing bullets and shrieking shells. "What will mother say"? or, "what will my comrades say"? has kept many a man to his post, when it would have been pleasanter to be away from it. So I gripped the pistol, and retreated to camp in good order, facing around occasionally to see if the enemy was pressing me, and prepared to fight if he was.

My approach aroused John, and I assured him that I had only been out to look at the night, and see if any game was around. He yawned, and said: "There 's no game here that stirs at night, except rabbits and skunks, and the snow makes so much noise that they 'd hear you a mile off. Put some wood on the fire and turn in. I heard you go out, and then you stopped walking for a long time; what were you doing"?

I let down the flint of the pistol, and said: "O, just looking for game," and there was no more talk. I turned in, and nothing could have convinced me that I closed an eye, if I had n't suddenly found it daylight, and breakfast almost cooked.

John was cooking sausages, which were strung on birch twigs, boiling coffee, and as I stepped out into the glorious morning, the fancies of the night vanished, and I thought camping to be the highest form of life. True I was stiff and sore from a knotty bed, but that was soon forgotten. We were two of the greatest fishermen, mightiest hunters, and woodsmen, that walked the earth! Life was worth the living, if it was to be like this in the future. We had neglected to bring a coffee-pot, but John had found a little tin pail in a bough-house near by, and we had coffee.

Then I looked in amazement to see John bring out his fishing tackle and a cigar box full of minnows, for I knew nothing of fishing through the ice. As I looked about by daylight I was surprised to see a farmhouse and evidences of civilization. I thought we had left all those things far behind. It was a sad blow, but we must endure it. We went forth after the pickerel soon after sun-up on a clear, frosty morning, when the tapping of the little sapsucker could be heard half a mile, and the calling of the crows, much farther.

John showed me where to cut the holes, and he rigged the lines, tying each line to the middle of a stick, to prevent its loss, and so arranging it that a pull on the line would roll the stick and elevate a twig, which had been left on the limb, and that was to be our signal if a fish was biting. I had cut forty holes and they were all baited before noon, but not a pickerel had sampled our baits. We went into a neighboring orchard to see if we could find any unfrozen apples, and met the owner there. He took us to his barn, and lifting some hay from a pile of choice apples, told us to help ourselves, and to come again, only we must be sure to cover the apples when we left.

"What kind o' bait are you usin' for pickerel"? he asked.

"Dead minnies," said John; "we could n't bring live ones, and if the pickerel don't bite at them this afternoon we 'll wiggle 'em up and down to make 'em think they 're alive."

"Boys," said the farmer, "you 'll not get a pickerel in a week with dead bait. I 've got to take several loads of grain to the railroad this afternoon, or I 'd get you some live bait. Wait till to-morrow morning and I 'll fix you with minnows. I watched you camp last night in my woods, and noticed that you went after dead limbs for your fire, and did n't burn my fence-rails, as some boys and men do. I think you 'll find that open-front bough-shanty better and warmer than your tent, only don't let it get on fire."

We moved into the shanty at once and then took a stroll in the woods

with the horse-pistol to look for game. John said: "Leave the lines out in the holes, we 'll cut 'em out in the morning."

The place where the monsters had assembled the night before, near the oak, showed only some rabbit and mice-tracks, much to my surprise, but I made no comment on the fact because I did not care to explain it to John. It was thawing slightly and the snow did not crunch, as at midnight, and a few dead leaves fluttered down. We came upon the track of a man which had been made after the snow had hardened; the edges of the crust had been broken, and without any reason we followed it. Soon John said, "This fellow is snaring partridges," the bird we now call "ruffed grouse."

"How do you know that"?

He pointed to a low hedge made of brush, and said: "There is his fence, and we 'll follow it and see what he 's got."

This was charming. It opened up a new bit of woodcraft, for I had heard of snaring partridges but never expected to see it done. The fence had been made before the last snow fell, that was evident, because there were no fresh man-tracks beside it. We soon found the first opening in the fence and John pointed out that the trapper had taken a bird out after the first snow had fallen, but before it had crusted, and I marvelled at John's knowledge of woodcraft. The second opening showed a partridge snared and swung up on a limb, and we discussed the propriety of taking it.

"Now, John," said I, "that partridge belongs to the man who built the fence and set the snare, and it looks to me like stealing to take it. Suppose some man should go out on the lake while we are away and take a whole lot of fish from our lines. How would you like it"?

In John's mind the case could not have been a parallel one, because he gave me a look and replied: "It don't make no difference, I 'm goin' to have that pa'tridge. Jim Bleecker and other first-class Albany gunners say that a man who snares pa'tridges is a thief and a sneak, an' I 'm not only going to have that bird but I 'll break his fences and his snares."

We got two more grouse and a rabbit, broke up a quarter of a mile of fence and went back to camp. The sun was low. We hung the birds back of the shanty where the fire would not hurt them. I made a fire while John dressed the rabbit, and then we cooked it by parboiling it in our coffee pail, and then we fried it in sausage gravy. The snows of fifty winters have fallen since, and the suns of as many summers have melted them, and yet I hesitate to say that a rabbit cooked in that manner is not a rabbit cooked in the highest style of the culinary art. It was flavored with all the romance of a first camp, and sausage gravy. My more mature palate has nothing to compare with it, and that night in the long ago, I ate that rabbit with a gusto that could not have been surpassed by the wildest dreams of Lucullus. True, the rabbit was not one captured in lawful

PICKEREL FISHING THROUGH THE ICE.

chase, but it was cooked in a lawful coffee-pot and in lawful sausage gravy, by our own hands in the wilds of Kinderhook, fully fourteen miles from what we thought to be, not only the centre of civilization, but was actually our centre of the world. And so we go; only the world somehow does n't grow as fast as we do; it 's a little affair, after all.

The open brush-shanty was warm and comfortable, its slanting roof reflected the heat of the fire on us and there was a bed of boughs which had no twigs in them. I sank to sleep without musing upon the philosophy or the poetry of sleep. I simply slept the sleep of a tired boy who had lost a lot of it and had to make up both principal and interest. There were no sticks in the bed, no Arctic temperature, and — morning came.

We had just breakfasted when the farmer joined us. He had a fine-meshed net and took us to a place where a spring came in and we seined out some minnows. "Don't take more than you need," said he, and we selected fifty from the first haul and kept them in a bucket which he loaned us, and then went on the lake, cut out the holes, rebaited the hooks with live minnows, and the fun began. Tip-up after tip-up bobbed and we ran from hole to hole, pulling up a pickerel or a perch, or rebaiting hooks. Fun was no name for it! I remember calling out: "John! look at this big one"! and hearing him reply: "That 's nothing, look at this."

Toward noon the fish ceased biting and our desire to bite began. We counted fourteen pickerel, which, at this late day, seem to have averaged four pounds each, and a lot of perch, perhaps twenty. At least sixty pounds of fish in all. What was to be done? We could not pack them home on our backs, in addition to our other things, for we had not lightened our loads much. We went to the farmhouse with half our fish and offered them to the man who had given us the apples and the minnows. "Boys," said he, "I 'll take three fish, an' they 'll do for supper an' breakfast. You will want to take home the rest, an' you 'll vally 'em more 'n I do, so take 'em home."

"But we can't carry 'em," said I.

"No," said John, "we had load enough coming down, and could n't get all these fish home. Take some more, an' we 'll make an attempt to carry the rest, if they break our backs."

"I 'll tell you, boys, what to do. Bring all your things over here and take supper with us. We have a spare bed for you, and I 'm going to Albany with a light load in the morning and you can ride with me. What do you say"?

"Mr. Jackson," I had learned his name, "we came down to camp out, and it 's just bully. We thank you for the offer of a bed, but prefer the shanty. While I like camp life, as far as I know it, I have no great liking for packing a load on my back, and a ride back with you will be a pleasure, won't it, John"?

"Sure! I don't mind the walk back, but my shoulders are not fond of a load."

And so we spent the third night in camp. We again walked in the woods, but there was not much life. I saw a pileated woodpecker, which seemed to be too familiar with such bold hunters as we, and only dodged around a tree as we came near. I wanted to kill it, and brought out the pistol, but John said: "Let it live; it ain't good to eat and it don't harm us." So the pistol was put away and I received a lesson in sportsmanship which I never forgot. Those words of John Atwood, spoken to a murderously-inclined boy, over half a century ago, should be repeated with emphasis by every man who gives his boy a gun, because a boy is a savage and needs to be taught not to take life unless for food or to rid the earth of what we call vermin.

The stillness of the woods and the absence of life surprised me. I had supposed that I was in a wilderness where deer roamed in bands and other big game was plenty. To-day this seems absurd, for it is doubtful if a deer or a bear had been seen in that peaceful farming community for half a century; but, as a boy, I thought it a wilderness. A few chickadees and sapsuckers were all the life we saw. There were no more rabbits nor ruffed grouse in the snares because we had destroyed the fences, and we reached camp before sundown.

It was such fun to cook supper, to fry fish, sausage, make tea and eat on bark plates, which we threw into the fire afterward, that no farmhouse supper could compare to it. We bossed each other in the usual manner of older campers, and criticised each other's cooking. When we retired there was a bed of coals, the heat of which was reflected on us, and if any monsters came near our camp, we did not know it.

When Christmas nights come, and I fill stockings instead of hanging mine to be filled, the thought of that far-away Christmas comes up, when I spent my first night in the woods, and never thought that the good old Saint could protect me from monsters of the forest as easily as he could reach my stocking down the chimney.

On these nights, which seem to be coming with increasing frequency, I often see a mangled form, blown out on the ice of the river by a boiler explosion, and wonder if the coroner could be correct in certifying that the mangled mass was all that was left of John Atwood.

Christmas nears, and I think, with Longfellow:

> "The leaves of memory seem to make
> A mournful rustle in the dark."

CHAPTER XIV.

DEER-STALKING IN THE MAINE FOREST.

By J. PARKER WHITNEY.

THIS subject has so many aspects, varying so in effect upon the application and receptiveness of the stalker, that it is not likely that one's views may be fully shared by another. Still, it will be readily conceded that the enjoyment does not wholly consist in the killing of the deer, although that is the primary object, but, as in fishing for trout, the auxiliaries are the great and attractive features.

Whatever season it may be, the Maine forests are lovely, and it is difficult to say when they are most so. One might say it is in the early spring, when the buds of the deciduous trees are expanding and the ferns and brakes unfolding, or when full-fledged, or in the decadence, when the autumnal tints appear, or in winter, when garnished with wreaths of snow.

Most stalkers will concede that at no time of the year are their rambles more agreeable than when the ground is half carpeted with the yellow, brown and crimson leaves which mark the opening of the hunting-season.

The period of falling leaves is exceptionally charming. As the leaves fall they exude the various odors of their species, so that one with closed eyes may tell the character of the prevailing trees. I have often thought of the pleasure I should take if I were blind, in walking among the localities I am familiar with, when the pleasant recognition of well-known trees would guide my steps.

To my taste, the late fall and first half of the winter disputes with any other season, and I am not sure if I do not prefer the rough and changing time of winter at the lakes, with its accompaniments, to any other. At least the summer is too short and the scene must lap over. Tell me not of orange groves and flowers, and vines with clinging clusters, but of the winter forest in its kaleidoscopic beauty, and of the lakes in their broad mantles of ice and snow. The singing of the wind around the tree-tops and the whirling flakes have more charm for my accustomed sight and ear than the cooing of the dove in midsummer bower.

There is a wholesomeness and vitality about the Maine forests in winter which is not found elsewhere. The cold, the ice, the snow, the changing rough weather, invite to the robust recreations of skating, ice-boating, tobogganing and snow-shoeing. They heighten the comforts of indoors.

Photo. by N. C. Nash.

AN EARLY "TRACKING" SNOW.

Restful sleep, appetite and digestion, and blazing birchwood fires solve the question, "Is life worth living"?

There are scarcely any Maine forests, however tangled they may appear, which do not possess pleasant and accessible reaches or park-like valleys and hillsides, or rounded ridges of hardwood growth or pine, allowing comfortable traveling for the stalker. Possessed with the unerring compass and a tolerable familiarity with the region-marks, he advances upon the proposed line, which may include some miles of circuit. There must be an object in all efforts to give zest, whether we walk, drive, sail, bike or shoot; somewhere to go, something to realize. So with the deer-stalker, his primary object is to get deer, and it matters little, in one sense, if he succeed or not, and the latter is generally the case. But if he is of an appreciative cast, the surroundings are inhabited with charming life and enjoyment.

As the autumnal weather grows cooler, the deer are found more in the open growth, and range about extensively. It is the approach of the mating season, and frequently seen are the saplings with scarred bark, caused by the whetting of antlers preparatory to rival encounters. Here and there are bare spots and scattered deadwood which have been pawed in the impatient spirit of combat.

The deer, timid as supposed, is possessed of an indomitable and persistent courage in conflict with its own kind, and will fight to the extremity of weakness and even death before yielding. The stalker has witnessed many scenes where the trampled ground and broken shrubs indicate desperate encounters. One spot I lately observed which indicated a meeting of particular ferocity. I had tracked a large buck through eight inches of snow. The buck had evidently found several others in conflict, and being a free lance, and at a free fight, had immediately engaged. The snow was completely crushed and tumbled over an area somewhat larger than an ordinary circus-ring, and it was decidedly apparent that a stag-circus of unusual magnitude had occurred without the supervision of a ring-master, or the encouraging plaudits of spectators. I counted five departing trails, and the performance had probably terminated several hours prior to my arrival. Probably one by one the vanquished had departed, until the acknowledged champion held the field. Such seems to have been the case, as the trails were diverging. One champion exhibited the hasty and ludicrous method of his exit by leaping over a broken tree six feet in height, when a projecting fracture had creased his body the whole length in passing, leaving a bountiful handful of hair and fragmentary cuticle in evidence. This might be accounted a feeling instance of the P. P. C. order of etiquette with the cervus family. The trampled area was flecked with enough hirsute scrapings to fill a good-sized pillow, with occasional spatterings of scarlet coloring.

It is very rarely that a buck, however large and savage, will charge a stalker without provocation, but occasionally in the mating season, when wounded, he will charge. I had an encounter of this kind in 1859 on my second visit to this region, from which I escaped with scarcely a scratch, killing a buck which dressed 230 pounds with a single heart thrust of my hunting-knife. It was in eighteen inches of snow. In a thicket I came suddenly upon a large buck I had been tracking, which I slightly wounded with a hasty shot. In a flash he turned upon me. It was before the day of repeating-rifles, and I had barely time to drop my rifle and step aside and draw my hunting-knife when I was borne down into the snow by the descending buck; as he struck me I caught him about the neck, and as he arose I drove my knife to the hilt in his chest at the junction of the throat, severing his windpipe and splitting his heart. Death was instantaneous. I found it difficult to withdraw myself quickly enough to escape the red torrent of life-blood which gushed forth.

With the fall of snow, the deer-stalker finds new delight. With the comfort of well stockinged and moccasined feet, he goes forth to new realms of enchantment. The atmosphere is of buoyant and stimulating energy. The arboreal and shrub-life are invested with crystallizations of dazzling purity, each one being a marvel beyond the art of man. The consciousness of being alone in a wide expanse of forest, beyond habitations and the sound of human voice, is in itself, for the nonce, a sensation of relief.

The reaches of pine groves, and of beech, and of maple, all interspersed with birch, the loveliest tree of northern climes, are inspiring. They say: "Come and explore us. We have waited long and you came not. Now you shall bear witness to our grandeur and solitude, and have contemplation. See in us the prototypes of your own race, how we rise and fall. We flourish in prosperity, and topple in misfortune. Many stand apart, rugged and gnarled, as some of your own kind, defying the wintry blast; but others are nurtured in protection. Some are comely, and others scarred. See in us your own history, to start forth, and bear, and die. Your sun of light is ours, and the sky to all, and the air you breathe is our life. Yonder broad stump is the monument of a patriarch of old. There were giants in those days, but none now, for they have been taken to rib your homes and deck your ocean messengers."

At the hour of noon the stalker rests before a dead and broken pine which, with match and birch peelings, is soon in blaze. His simple luncheon becomes a precious blessing, and may be followed by the incense of fragrant pipe.

What more shall be required to fill the day's cup of happiness than the comfort of the home-fire at night, and the panacea of Nature's most enjoyable fatigue?

CHAPTER XV.

New Brunswick Moose.

By FRANK H. RISTEEN.

It is without the least desire to discount the claims of any other big game region that I make the statement that the moose supply of New Brunswick is not equalled by that of any other section of eastern North America. As compared with Maine, the vast forest interior of the Province has been very little hunted; many parts of it have never echoed the sound of the chopper's axe or the hunter's rifle, and the moose, as well as the caribou, have increased amazingly in numbers in the past ten years. Maine is still pre-eminent in its supply of deer, but so great has been the invasion of sportsmen upon its hunting-grounds of late, that moose and caribou are now comparatively scarce, except in the Aroostook region. New Brunswick has many vast areas of game supply, such as the head-waters of the Tobique, the Restigouche, the Nepisiguit, the Nor'-West and Sou'-West Miramichi, the Cains river and the Canaan, where almost every acre of the soil is decorated with the comely tracks of the moose and caribou, and where forest trails are scoured deep in the solid turf by the migrations of many generations of these noble animals. The Province extends a welcoming hand to the visiting sportsman, while at the same time it prays to be delivered from the grasshopper host of reckless and ruthless killers of game that have devoured and devastated the forest life of other lands.

The game laws of New Brunswick are certainly liberal in all their features. They permit an open season for moose, caribou, deer, duck, woodcock and snipe, extending from September 1st to January 1st. They allow each sportsman a quota of two moose, three caribou and three deer in a season. They require a license fee from non-residents of $20, and from residents of $2, the proceeds being applied to the protection of the game. No license is required for the hunting of deer. The open season for partridge or ruffed grouse, which are very abundant in the Province, extends from September 20th to January 1st.

The sportsman who hunts in New Brunswick will traverse a region for the most part untainted by the touch of man; where he will not have his profanity provoked by constantly colliding with other hunting-parties; where he will not be mistaken for a game animal by irresponsible youths, and shot at as he walks the forest trails; where he will hear no other rifle-

shot but his own, though he remain for many weeks, and where he will be as completely shut in from the outer world, its "duns, debts and deviltries," as though he had been translated to the planet Mars. He will see the great forest panorama rolled out before him just as it came from the hands of its Maker. He will float in his bark canoe on lakes that are as beautiful as a poet's dream, and whose eternal stillness is broken only by the uncanny music of the loon, the raucous note of the heron, the splashing flight of ducks, or the plunging stride of the wading moose. He will ascend high mountains that bear no impress of the human foot, and will listen in his tent at night to the hoarse soliloquy of lofty cataracts that have seldom been heard by human ear. The supreme charm of the forest of New Brunswick is that it is unhackneyed, unhunted, unadvertised by hired scribblers — as fresh and verdant in its summer garb of Lincoln green, or in its gorgeous robes of autumn, as it was in the dawn of time.

The moose is admittedly the noblest of American game animals. His majestic proportions, his speed, strength and cunning, make his capture the climax of the sportsman's joys. As with all members of the *Cervidæ*,

Photo. by E. W. Shaw.

AN UNTIMELY END.

there is great disparity in the sizes of adult individuals. Moose have been killed and weighed which tipped the scales at 1,350 pounds, and yet it is not uncommon for a great spread of antlers to be found on a moose weighing little more than half of this. In color the moose varies from a greyish brown to almost jet black. As a rule, the bull is blacker than the cow and of larger size. The legs are of imposing length, enabling the animal to wade through the deep snows of winter, as well as to reach the twigs and buds upon which he loves to browse. A prime specimen of a moose will measure six feet and a half at the withers, and very little less in rear elevation. The commonly accepted idea that a moose is much higher at the shoulder than at the buttock is erroneous, as is also the notion that when cropping grass, he is obliged to assume a kneeling position.

Until recently the widest spread of horns ever recorded in Maine, Nova Scotia or New Brunswick was five feet, two inches. This fine head was taken in the Canaan region many years ago by Sir Harry Burrard and presented to the Prince of Wales. In the fall of 1896, Dr. G. H. Gray of Lynn, Mass., killed a moose which is regarded as Maine's record head. It was only fifty-nine inches in width but it had thirty-nine points. This year (1897) a moose was killed on the Tobique river, New Brunswick, by Stephen Decataur of Portsmouth, N. H., with the magnificent spread of five feet, six inches. At least eight moose were shot in this Province the present autumn with an antler spread of over sixty inches. The bull moose sheds his horns every year, usually about the middle of January, though sometimes, especially in the case of young bulls, as late as the month of March. By the first of September they are fully restored and then the rutting or mating season, which lasts about six weeks, begins.

It is during the mating season that the moose is most readily taken. He is then in the perfection of strength and condition and almost fearless even in the presence of man. The favorite method of capture is by what is known as "calling" or simulating the mating call of the cow moose. If an unmated moose is within hearing of the call and the call is skilfully executed, the bull will usually repond without hesitation and will sometimes rush to the imaginary trysting-place with a violence that will raise the hair of all but the most experienced of hunters. When the snows of winter come the moose "yards up" — that is, attaches himself to a certain section of feeding-ground, where he confines himself mainly to the paths which he makes in the snowy waste, and browses from day to day upon the buds and twigs of whitewood, maple, moosewood, birch, willow and cherry. He will, however, eat the bark and buds of any kind of hardwood and most of the evergreens. Spruce or cedar he will seldom touch unless hard pressed by hunger. If there is a more exciting experience on earth than that of shooting a moose that has been called up on a moonlit

evening, it is that of still-hunting a moose on the snow. Let me try and describe them both as they have happened in my observation.

I was hunting in the Little river country with another amateur friend. I had learned from a past-master in the art how to imitate the call of the cow moose. We were sitting on a log at the foot of a long, narrow deadwater just as the sun was disappearing in the west. Several times I called without result. Then I heard a distant sound away on the barren hills to the north that resembled the stroke of an axe at the root of a rotten tree. It was very faint at first but again and again it was repeated, each time louder and clearer than before. My companion, not hearing the sound, started to make a remark to the effect that we had better make for camp before it got too dark. "Hush"! I whispered, "don't you hear the moose? He 's coming right along, and we 'll attend his funeral, sure"!

At first my friend did not detect the answering note, but as it became louder and nearer he became convinced of the reality and prepared for action. "Wuh! Wuh! Wuh! Wuh"! The sound came down the hillside till the fading sunset and the spiral wreaths of mist that rose from the still cold surface of the pond seemed tremulous with impending tragedy. Louder and louder yet came the response as we stood there motionless as statues with our rifles ready for the fray. Even the steps of the unseen monster can now be heard as he picks his way through the boggy margin that surrounds the head of the pond, and pushes his horns through the intervening branches.

Suddenly all is as silent as the grave. He is standing in the alders at the head of the pond and listening and seeking for the scent with all his might. He is a wary old bull and has been tricked before, or else a spike bull who means to take no chance of being shovelled ignominiously into the pond by a bigger rival.

I raise the birchen horn and give the most seductive, plaintive call that I can evoke from the instrument. The moose responds with a hesitating "Wuh! Wuh"! and takes a cautious step in advance. This is repeated half a dozen times, and at last he has located himself in the alders not more than sixty yards from our position. There he stands, silent and motionless, while the golden light dies out of the west and the pallid October moon spreads her mystic radiance like a mantle over barren hill and pond. No effort of mine can coax him from his dark retreat. Not once have we caught a glimpse of his huge body as he has advanced through the alders down the bank of the pond. I try the ancient trick of pouring water from the horn, but I should have done that before, for he is now suspicious and means to take no chances. Will he never come out of that jungle of alders? Are we going to lose him after all?

At last we hear a rustling in the thicket that betokens a change of

base. He has turned around and is making back through the alders, grunting as he goes. This is a peculiar circumstance. Why should he perform his amorous solo if he has decided to leave us? The truth soon dawns upon us. He is going around the pond, keeping in the shadows all the while, and coming down the other side. We must shift our position to the other side of the pond, hoping to catch a glimpse of the moose as he slowly advances through the forest gloom. We cross the foot of the deadwater on a dilapidated corduroy bridge and conceal ourselves behind a low fringe of bushes. If he comes down the southern shore as far as he did before he must cross a narrow opening in the fringe of alders. He pushes boldly to the opening, hesitates, gives an anxious grunt, and then his dark body is thrown for an instant in bold relief against the starlit sky. Two heavy army rifles awake the woodland echoes for miles and miles around, there is a crash in the thicket, the sound of a falling mass, crushing down the brakes, and then our pent-up emotions give vent to a war-whoop that would do credit to the wildest Comanche of the plains. He is down and he is ours!

Still-hunting a moose on the snow is a very uncertain operation. Sometimes it is an affair of a moment as you catch sight of the quarry and drop him in his tracks, and then again, it may mean the hardest kind of a chase for several days with cold and sleepless camping on the trail by night; for the moose when once started from his "yard" is most persistent and determined in his flight. Through bog and drift and jungle he will pursue his tireless way with a swinging trot that soon leaves his pursuer many miles behind. But human endurance is superior to that of any of the wild creatures of the forest, and the moose is handicapped by one great disadvantage. He cannot eat while he knows or fears that he is being pursued. By the third or fourth day he will become exhausted and savagely stands at bay. Woe to the hunter then, unless his nerve is steady and his eye is true, for death lurks behind the vengeful fury of those lance-like hoofs.

It was with an Indian guide that I had my first and only experience at hunting moose upon the snow. It was on a hardwood ridge near Rocky brook. He was an old bull and yarding alone in sullen majesty. The Indian led the way rapidly, not following the tracks closely, but traveling in long curves to leeward of the trail and cautiously returning from time to time to inspect it. Soon he ran into a perfect maze of tracks that would have utterly defied an amateur's power of analysis, but with a glance at the browsings here and there, John pressed forward with the utmost confidence.

"You see that moose stop here and feed good wile. See-no-wan (maple), um-qua-day-a-wah (whitewood). Sartin he 's mighty big moose — not fur off. Bambye git very close, then you shoot him mighty quick."

Another sweeping *détour* down wind, and then John approached the top of the ridge with the utmost caution. He seemed to know instinctively that the moose was close at hand and that one incautious mistake would be fatal. He brushed the twigs aside carefully and scanned the ground with great alertness. Removing our snow-shoes we followed him on hands and knees around a little birch knoll from whose top the snow was being sifted by the biting wind. But wary though our movements were, the royal game was still more wary. He had heard the thud of an overlapping snow-shoe, or the scrape of our frozen clothing against the matted firs, or else his super-sensitive nostril had caught a wayward whiff of human scent. We heard a tumultuous crashing in a thick snarl of whitewood on our left, followed by the muffled impact of hurrying feet upon the ground, and caught a glimpse of a huge black monster tearing through the brush. A tremendous roar indicated the discharge of John's venerable piece, and then I heard the vicious crack of my friend Harry's rifle several times repeated. As for myself, the episode was altogether too impromptu; it left me where it found me, petrified in a devotional attitude, half-way up the knoll. John bounded to the top of the knoll and then set off in desperate pursuit, leaving us to follow as best we could. We soon caught up to him where he had paused to load his gun. He said the moose was only slightly wounded and we were probably in for a long chase. We followed the tracks across a barren and then to the bank of Rocky brook, up which the moose was trotting at a rate that left little hope that we could overhaul him before night. We pressed onward wearily, walking and running by turns, and once very nearly came to grief in an air-hole. Mile after mile we sped in dogged silence up the long white avenue as the sun dipped lower and lower to the western verge. At last John stopped, and wiping the solution of powder and perspiration from his face, exclaimed in feeling tones:

"Mujago! Mujago! Too bad, too bad. Can't ketch that moose 't all. Dark purty soon. Track all time gitin' old, you see."

John was almost heartbroken. Brushing the snow from a rampike that stretched across the stream and motioning us to sit down and rest, he limped wearily up the ice to take a final view around the next bend in the stream. Suddenly he raised his hands and shouted something in the Indian jargon that was so exultant in its tone that we knew the game was ours. Hurrying to the bend as fast as our leaden limbs could be persuaded to respond, we saw the moose about two hundred yards away, standing in the centre of a kind of frozen pool or pond, and making desperate but unavailing efforts to extricate himself.

"By jing," said John, "that moose got him in trap this time, sure! Brook freeze up, then fall away, ice come down in middle; so slippy you

see that moose can't clime out no way 't all! Shoot him now, boys, quick"!

John's theory of the collapse of the ice forming a natural basin, up whose glassy sides the moose was unable to secure a footing in any direction, was the true one beyond a doubt, but that we should find him there was certainly the most wonderful piece of luck that ever had fallen to the lot of weary, despairing sportsmen. Harry and I approached leisurely within forty yards, aimed straight for the shoulder, and at the dual report of the rifles the noble beast sank lifeless to the snow. He was a very fine specimen of his race, almost perfectly black in color, his antlers measuring fifty-six inches, from point to point, and the carcass, John thought, weighing about 1,200 pounds.

Photo. by Capt. Joseph B. Taylor.

A HUNTER'S KITCHEN.

Hon. HUBERT WILLIAMS, LAKEVILLE, CONN.
President of Conn. Commission of Fisheries and Game.

CHAPTER XVI.

FISH AND GAME IN CONNECTICUT.

By Hon. HUBERT WILLIAMS.

SOME game may still be found in Connecticut, but the State is not a sportsman's paradise, and the man who succeeds in getting a good creel of fish or bag of birds after a day's careful and intelligent work is exceptionally fortunate. This, I am sure will be admitted by all who are conversant with fishing and shooting in Connecticut, and the fact is deplored by all lovers of the rod and gun. Of fresh-water game-fish we have the trout and black bass; and of game-birds, some quail, woodcock, ruffed grouse or partridge, rail, ducks and other migratory birds. Of game animals, we have rabbits, the raccoon, the red fox and an occasional wild-cat. The spotted or brook trout, which twenty-five years ago was numerous in almost all the streams in the State fit for its occupancy, is now by no means plentiful. The reasons for the decrease are, I think, the cutting off of the trees, the use of the streams for milling and manufacturing purposes, thereby causing the pollution of the waters; and the increase in the number of anglers.

The cutting of the timber along the streams and on the hills has been followed by both drouths and freshets. Several streams in which, to my knowledge, trout were formerly abundant, are now frequently so low in August and September that great loss of life among the fish has resulted. When a stream becomes so low that it is but a succession of pools, with a thread of water between them, the fish in those pools die from lack of food and water, or are the easy prey of the predatory birds that haunt them, together with the active mink, the sly "coon" and the bifurcated hog, who with bran-sack, or scoop-net, like the old sexton, "gathers them in." When spring comes, in consequence of the lack of foliage of trees along the streams and hillsides, there is nothing to keep out the sun or withhold the rush of water from the melted snow and falling rain, so the few baby trout that have been hatched are overcome in the rush of water and are often buried in the silt that is carried down with it or they are left outside the stream when the waters recede. There are more acres of woodland in Connecticut than there were fifty years ago. Indeed, the reports of the U. S. Commissioner of Agriculture show an increase in the State of about 131,000 acres in the wild or waste lands during the last forty years. But

this is not forest or timber land. It is covered with brush and scrub. Time may make it forest, but it is not such to-day and it cannot perform the work of timber-growth in giving out gradually the stored-up moisture, nor in withholding the sudden rush of snow-water or heavy rain. The only remedy for this condition in our trout streams, that I can see, lies in generous and persistent stocking, using for the purpose, fry, fingerlings and adult fish. This State has not, as yet, reached the point when such work can be done. Nor will it until the men interested in fish and fishing, unite and insist that the greatest good to the greatest number shall be the governing rule.

Our law regarding the open season for taking trout, owing to the geographical and climatic conditions existing in the State, is not, I think, a wise one. In this county (Litchfield), for instance, April 1st is too early a date for the opening of the season. Oftentimes the snow-banks still line the brooks and ice lingers in them. The fish are poor, sluggish, and of no value for food, and their capture while in this condition cannot be called sport, for any one who has the patience can take all the trout in a given hole by letting the bait drift against the mouth of each fish therein.

The State should own and operate hatcheries, retaining ponds, and pools at which sufficient trout can be hatched and reared to reasonably stock all streams still fit for these fish to live in, and which are open to the public.

Until concerted action on the part of those who are interested in the preservation of fish and fishing, as well as those to whom the beauty and healthfulness of our State is dear, is taken, the thoughtlessness and greed of the few will abridge the pleasure and menace the health of the many. While it is true that now and then the man, the day and the place come together, and a good day's sport is the result with either rod or gun, the general experience in Connecticut is that one must be contented, or, at least, put up with mediocre sport. The commissioners will, I am sure, do all they can, both in the line of stocking and protecting, but with their present facilities and under existing conditions the results must necessarily be rather unsatisfactory. In one line only are they able to show a great improvement over the former state of things, viz. : the increase of shad. Our retaining ponds will furnish accommodations for eight millions of the young of these fish each season, and in them they will increase in size from the diminutive fry of June to fish from two and a half to five inches long in October, when they are released. These fish, in addition to the fry annually released, cannot fail to produce important results. The record, imperfect as it is, shows, year by year, a very substantial increase in the number of shad taken in Connecticut. In the matter of trout, each applicant was supplied in the spring with 4,000 good-sized, lively fry, and the commissioners have also planted this fall as many fingerling trout as they

could. Several thousand eighteen months old Atlantic salmon have also been released. Lake trout have been introduced into several of the lakes adapted to their occupancy and in some of these waters, at least, they are doing well. The brown or European trout are to be found in many of our streams and they are certainly here to stay. As to their being a desirable acquisition, there is a division of opinion. They grow more rapidly and to greater size than the native brook trout; they are not, however, as good a table fish as the other and are generally conceded to be less gamy.

As before stated, the principal game of the State consists of the partridge or ruffed grouse, and the quail. These birds are certainly growing less in number as the years go by. The partridge succumbs to the brush fence with its snare or trap, to the stealthy approach of the red fox, the mink, skunk and weazel, and the ravages of fire during the brooding season. The quail that has survived all the other perils of flood and field, is obliged to yield to an ice storm, either through imprisonment and suffocation, or from starvation.

The law that allows any snaring, trapping, or netting of either of these birds is a poor one, and should be superseded by an entire prohibition under penalty, for the taking by snare or trap, of any kind, such birds.

I should be glad to see the complete prohibition by law of the sale of game in every State in the Union. This I probably shall not see, but the day may come when a man's shooting and fishing will be as much his private property as is now his potato patch or lawn. The Fish and Game Commissioners of this State are called upon for "the enforcement of all laws relating to fish and game," as well as "the introduction and distribution of such food fish and game as are adapted to the waters or lands of this State."

These requirements are to be found in the public Acts of 1895, but neither then nor since has there been an appropriation providing for the enforcement of the laws or for the introduction of game.

The Commissioners endeavor to prosecute all violations of the laws relating to fish and game of which they have knowledge, but they have not the funds necessary for the vigorous enforcement that these laws should have. When for the pot-hunter and sporting man shall be substituted the sportsman, we may hope that the land-owners and hunters will make common cause, and by their joint effort secure the protection and propagation of our fish and game. If, however, the two nuisances are not abated, these rugged hills will not long know the thunder of the partridge's drum, nor the swift, clear waters of our mountain streams contain that queen of fishes, the leaping trout. With each decade, the birds and fish have become less and less in the haunts where once they were numerous. Connecticut is naturally a good State for both fish and game, and its resources might be made valuable in this respect by proper and persistent effort.

CHAPTER XVII.

A Theory to Account

FOR THE

Migration of Birds, with Notes

ON THE

Migration of Shore and Water Birds.

By C. J. MAYNARD.

As far back as history or tradition extends, from the time when quails came up from the sea to satisfy the unlawful longings of the children of Israel for the fleshpots of Egypt, even until the present day, have the migrations of birds been considered a mystery.

Now I do not know whether the theory which I am going to advance is absolutely new or not, for I have purposely avoided reading up on the subject in order that what I have to say may have the advantage of being from independent observation. But of this I am certain, that up to date no theory has been presented in a sufficiently forcible manner to satisfy ornithologists in general that it is correct. Mr. Alfred Newton, the celebrated English ornithologist, in his article upon birds, published in the last edition of the Encyclopædia Britannica, says that the migration of birds is the "mystery of mysteries." In the recent work upon the migration of birds in Heligoland, the author not only does not advance any theory, but goes as far as to say that migration never has been satisfactorily explained nor can it ever be explained. An able American ornithologist, in reviewing this work, practically says that this statement is one of the best parts of the book.

We have all of us, without doubt, seen an old hen who, after rearing a brood of chickens with great care, giving them every attention through the earlier portions of their career, when they have arrived at a certain age suddenly turn upon them, and by blows from her beak drive them from her. That old hen has, by that act, furnished the clew to the solving of the mystery. In other words, when the hen struck the first blow at her offspring, she sounded the keynote which vibrates through the whole system of migration of birds and other animals.

I do not mean to say, however, that I was bright enough to pick up the clew given me so repeatedly by old hens. No; although I have seen hens, as well as other birds, driving their offspring from them many times, it did not occur to me that this was the end of the thread that leads through the labyrinth of migration. I came at it in another way, and only followed out the thread which led to the hen and her chickens from the inside, after the matter had become plain to me.

I had been working upon a problem concerning two hypothetical species of birds, and the study which this involved led me to look into the origin of certain groups of birds. It then occurred to me that migration of birds would greatly aid us in determining the origin of groups of birds; when, like a flash, came the thought,— why, the origin of groups of birds surely furnishes a certain clew to the origin of that instinct which we call the instinct of migration. I, for one, had been always thinking about migration from the wrong end. Then it was that I saw that the hen and other birds had been offering me the clew so long, but I, neglecting an easy way in, had fairly stumbled over the wall.

First, I must go back to the beginning; yes, even to the beginning of migration, to a time when we can be reasonably certain that there was no annual migration, or at least no migration north and south, north of the equator. This was during the last glacial period.

Whether prior to this time, when the northern hemisphere was overwhelmed by the great ice sheet, the fauna inhabiting the Arctic and Temperate zones were migratory, is exceedingly difficult to say. Of one thing we can be certain, and that is that all animal life either had to retreat before the ice sheet or be overwhelmed by it. Probably most birds retreated before it.

At a time, then, when the ice had reached its nearest point to the south pole (for it is probable that there were alternate glacial periods, the ice sheet covering first one hemisphere of the earth and then the other, very long periods of time intervening between the two changes), the birds and other animals would be forced into comparatively narrow limits. Possibly, and even probably, the fauna, consisting of all classes of animals, was quite limited at this time; but then, as now, the parent birds were driving their young away from them, and were causing them to spread over every possible space of land, east and west. But at the north they were hemmed in by the ice and so could not go far in that direction. After a time, how long a time we do not know, the great cold cycle began to abate and the ice sheet began to melt, backing toward the north pole, slowly at first, leaving a desolate land exposed. But Nature always hastens to clothe desolate spots with verdure; and following vegetation came insects, spreading gradually to the northward. The birds, induced to scatter by their parents,

would hasten to occupy any section which offered food for them, and both insects and plants would do this. The birds which occupy the new section would in time remain and breed there, even if they did not do so at first. Now let us remember that even during that season of cold there still were seasons, and that with each recurring winter the ice advanced somewhat toward the south. The ice and cold near it would drive the birds backward again, and naturally they would return to their birthplace and their young would as naturally follow them. With the retreating cold in the following spring, the birds which had formerly bred further north would naturally return to their former breeding-ground, and the young to their birthplace, and all with their progeny would again have to retreat before the cold in the autumn. Thus an incipient migration began, which in time became hereditary, or, to use a synonymous term, instinctive.

Of course these migrations were very short at first, only a few miles in length, for the change in the climatic conditions must have been slow; yet they were the beginning of migration with all its seeming mystery.

One of the difficulties with which this theory has to contend is that some birds now pass over large bodies of water; but we can have little doubt that they at first went around them, and little by little, as the migratory instinct became more strongly fixed, they learned to cross the water. Many of our species now, in going as far south as northern South America, reach that place by going around the Gulf of Mexico and the Caribbean sea by the way of Mexico and Central America.

That birds have a strong love for localities, no one who has studied them at all can doubt, and they will return to breed in given localities even though they are constantly persecuted there. Twenty-five years ago I found the gannets and razor-billed auks breeding on Bird rock in the Gulf of St. Lawrence. There they were slaughtered by hundreds by the fishermen. This persecution had been carried on for years, and has doubtless continued ever since; yet according to reports of recent visitors the number of the birds has not greatly diminished.

The instinct for migration once established, this love for locality in which they have bred will induce these birds to return to it year after year, while the young return as near as their parents will permit them to their birthplace.

Now why is it that birds migrate northward with such regularity as regards time? The answer is easy to one who has seen them leave their winter quarters. Birds breed very regularly, all of any particular species beginning to lay within a few days of each other. It is the beginning of the enlargement of the reproductive organs, which shrink much after the breeding season is over, that induces birds to begin to migrate northward; and at this time the males generally begin to sing, so that when we hear their songs we know that they will soon migrate.

The beginning of a southward migration is induced by two causes. First and most important is the lack of food. In insect-eating species this lack will occur through increasing cold in the autumn. But this will not explain why such strictly insectivorous birds as the chimney-swift, some of the swallows, and some of the warblers migrate even in August or early in September, when insects are still abundant. Strange as it may first appear, I answer that the increasing length of the night causes these birds to migrate thus early.

In order to explain this we have to understand a little about the physical condition of birds. In most of these animals the blood circulates very rapidly, and digestion and all other functions are carried on much more rapidly than in mammals. They have to feed more often than mammals in order to acquire the supply of nutriment which they need. Insect food is assimilated more rapidly than is a vegetable diet, consequently swallows and swifts are almost constantly upon the wing in search of food. When the days are long and the nights short, they have a longer time to feed; but when the reverse is the case, and the nights become more than ten hours long, then the truly insectivorous birds cannot obtain food enough to last them through the long night. This is especially true when we consider that in order to withstand the fatigue of migration, birds must be in good condition before they start, and long nights would draw upon the accumulated supply of fat which has to be used upon the southward flight.

A difficulty in this theory of migration which must be answered, is the fact that some species are not wholly migratory; examples are the jays and crows, the titmouse, grouse, etc. The answer to this will be that as fast as species become fitted, through gradual adaptation to environment, to live in any locality, they lose the migratory instinct, as they have no inducement to leave a given locality. Such birds will as a rule be found to have become modified to a great extent to meet the conditions under which they live. Some, as the grouse, have acquired crops, an enlargement of the gullet, in which to store food for long nights and through storms. The intestinal cœca have become greatly enlarged, so that a greater amount of nutriment is obtained from a smaller amount of food than can be assimilated by birds with smaller cœca.

But perhaps I have said enough to convey my idea of the origin of the phenomenon of migration among birds, and that further discussion will prove too technical to interest the general reader. Should there be any who read this chapter who have a further interest in the matter, I will refer them to an article upon migration in my *Contributions to Science*, Vol. III.

I will now proceed to a subject which is of vital interest to all sportsmen — the migration of water and shore birds. It is a rather singular fact

that these water birds (ducks, geese, swans, etc.), all large, strong and hardy species, do not go nearly so far south as a rule as the smaller and consequently weaker shore birds (curlew, plover, sandpipers, etc.).

In passing, I will say that this fact, in a great measure, bears out my idea of the origin of migration of birds, for it is highly probable that the water birds were capable of living much nearer the ice sheet than were the shore birds, hence never went as far south during the last glacial period.

Before beginning to mention in detail the species among the birds which we have under consideration, I will say a few words about the velocity of flight. Without wearying the reader with data, I will simply say that in regard to the velocity of flight of the water birds, according to my own and others' observations, geese, swans and other large species move at upwards of one hundred miles an hour; thus they can readily accomplish a distance of 1,000 miles between meals.

Ducks, especially the smaller species, like teal, scaup, etc., move more rapidly than this, the average being probably as high as one hundred and fifty miles per hour.

Shore birds, as has been already stated, move more rapidly, averaging one hundred and eighty miles per hour, and some species probably even exceed this, flying at the great speed of two hundred miles per hour. It is a well-established fact that the golden plover sometimes may take one uninterrupted flight from Newfoundland to the West Indies in a straight line, thus covering 3,200 miles. Even if the birds went without food for sixteen hours, which would probably be longer than they could fast without becoming too exhausted to fly, it will be seen that they must move at the astonishing rate of two hundred miles per hour, or even more, in order to accomplish it.

It will be seen that I have qualified the above statement by inserting the word *may* before *take*, as it is possible that such birds as the plover, sandpiper, etc., occasionally alight upon those large floating masses of sea-weed, which often cover many square rods of water in the open Atlantic. I have seen large flocks of Phalaropes sitting upon these patches of sea-weed, at least one hundred miles from land. It is probable that these birds feed upon small mollusks, crustaceans, etc., which abound upon the gulf-weed, and I see no reason why plover and other shore birds should not, if driven to it, do the same thing.

Now to give some of the details regarding the migration of species; we will begin with the largest, the swans.

The whistling swan is the most common species on our southern coast, from Chesapeake bay southward, nearly to the Gulf coast. Swans pass north to their summer homes, in the far-away Arctic region, through the interior of the country, and return in autumn the same way. Thus they are now seldom, or never, seen on the coast of the northern States.

The trumpeter swan also migrates through the interior of the country, but is rarely found on the Atlantic seaboard.

Of the migration of the wild goose and brant I need say but little, for both are too well known to sportsmen, while the "*honk*" of the former species is familiar to nearly every one, as they sweep north and south in autumn and spring. The wild goose is not uncommon as far south as the Gulf of Mexico, and breeds from Newfoundland northward, but the brant is rare as far south as Florida, and breeds within the Arctic circle. We can judge something of the height at which birds move when migrating, by watching the flight of the geese. They often pass over upwards of a mile above the earth and sometimes go even higher than this. I once saw a flock of northward-flying geese, which were then moving so high above me that I could barely see them, rise higher in order to avoid a black mass of clouds which was accompanied by wind and rain, in fact, the birds passed directly through the margin of the cloud and were lost to my sight above it.

The true sea ducks do not migrate very far south as a rule. The eider is mostly confined to the region between southern New England and the coast of southern Labrador. The coots go further south, sometimes as far as Florida, and the same is true of the golden-eye and buffle-head, but both of these species and some of the coots are known as stragglers as far as the West Indies.

Among the river ducks we find the scaups, ringneck, canvas-back, red-head, wood-duck, pintail, baldpate, both teal, gadwall and black duck going into the West Indies, but all are very abundant from the Carolinas to Florida in winter. The mergansers also occur throughout the Southern States in winter.

Among shore birds we find some, like the woodcock, common throughout eastern United States and breeding throughout its range, but northern birds migrate southward in winter. The Wilson's snipe goes as far south as the West Indies, but breeds from the islands in the Gulf of St. Lawrence northward to within the Arctic circle.

The red-breasted snipe reaches northern South America. The stilt-sandpiper reaches Brazil. The knot, or red-breasted sandpiper is found in winter all over the southern hemisphere, and is abundant in spring in Florida. Both of these birds breed in the far north.

The pectoral, red-back, least, semipalmated and white-rumped sandpipers scatter through the southern Gulf States and West Indies in winter; all breed far north.

The sanderling has about the same migratory range as have the above-given sandpipers.

Of the two godwits, the Hudsonian breeds the farther north, within the Arctic regions, but the marbled breeds from Iowa northward; both

scarcely pass beyond the United States to winter and the marbled is abundant in Florida at that season.

Of the two yellow-legs the summer goes the farther south, passing as low as southern South America. This species avoids the northern Atlantic seaboard on its way north in spring to its Arctic summer home. The winter yellow-leg, which also breeds far north, scarcely passes beyond the Gulf States in winter.

The willet is common in the West Indies and breeds from the Bahamas northward in the interior to the northern border of the United States.

The upland plover winters in Brazil and breeds from Pennsylvania northward to Quebec.

Of the three curlews, the long-billed remains mostly within the United States, but also occurs in Mexico and breeds from the Gulf coast north through the temperate region of North America.

The Hudsonian curlew breeds from northern Dakota to the Arctic circle, and winters south of the United States; but I never saw it nor any of the curlews on the Bahamas.

The Esquimo breeds very far north and migrates farthest south of any known shore birds, reaching the extreme southern point of South America. They avoid the eastern portion of the United States in going north.

The two larger plovers breed far north within the Arctic circle, but winter in South America, the golden reaching as far as Patagonia. This species and the Esquimo curlew are probably instances of where species were driven very far south by the encroachment of the ice during the last glacial period, hence are now returning to the ancient home of their race to spend the winter.

A portion of our smaller eastern plover spend the winter in the Gulf States, but many of them pass into South America. I have obtained in a single day at Key West the killdeer, mountain, piping, Wilson's and ringneck; the last three of these I have often taken with a single shot.

Wilson's and the killdeer breed in the south, the latter also further north; the piping, from the middle districts to the Gulf of St. Lawrence, and the ringneck, from this point northward.

The solitary sandpiper passes south of the United States, and breeds from northern New England northward, and the spotted remains chiefly within the United States, but some pass as far south as Brazil.

The purple sandpiper forms a wide exception to the rule, but most shore birds pass far south in winter. This is a winter species along our New England coast, many remaining as far north as Grand Manan at this season. This bird is amply fitted by its warm and thick coat of feathers to spend the cold season so far north.

ALBERT NELSON CHENEY, GLENS FALLS, N. Y.
State Fish Culturist of New York.

CHAPTER XVIII.

NOMENCLATURE OF FISHES.

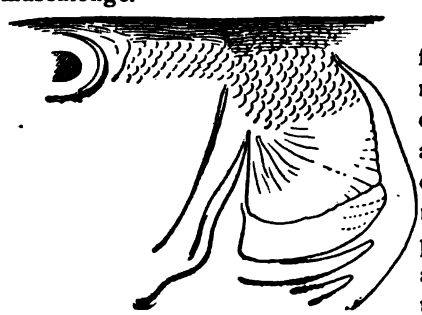
By A. N. CHENEY.

ANY man, or body of men, who will engage in the work of bringing some sort of order out of the present chaos of common names applied to American fishes, will deserve well of his fellow-men who have occasion to speak or write the names of those fishes, whether the men are anglers or not. If this reform could be made an accomplished fact, the next step would be to bring about a universal spelling of each of the common names, so that when a trout is mentioned, every man in every State in the Union, who cared to know, would understand that the word means a brook trout, *Salvelinus fontinalis*, instead of part of the people understanding that the fish referred to was a black bass, and that, when the name of the chief of the pikes was written, it should be spelled mascalonge and not muskellunge or something else akin to it. In England, when a pike is spoken of or written about, every one in Great Britain who knows anything at all about fishes recognizes the fish. In this country, when we say pike, a good share of the people understand the fish to be the pike-perch. We speak of the pickerel when we really mean the pike, and call the pike-perch a salmon and the black bass a chub or a trout.

Sometime ago I suggested to a well-known educator and author of school text-books, who is also a sportsman, that our game and food fishes should be portrayed in the school books, with a brief but plain description of each fish, that all could understand and so identify the fish, and under each cut should be printed one name of the fish, and not half a dozen names by which the fish is known in different localities. In this way the school children would be taught that each fish has but one common name, whether it is found in Texas or Maine, and by a sort of evolution the children of their children, *ad infinitum*, would come to recognize our fishes at sight and call them by their proper names wherever they found them, and the leaven of correct nomenclature would spread over all the land. We can scarcely expect that a man who has called a pike a pickerel for

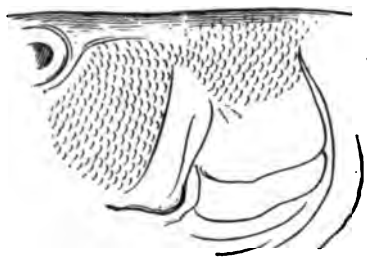
fifty years of his life, will commence in his fifty-first year to call it by its proper name, and we will, in order to succeed in this reform and make it permanent, have to begin with the children and educate them by aid of text-books, at the same time that they learn the multiplication table, to call a pike-perch a pike-perch, and not a doré or a salmon. My friend, the professor, was of the opinion that the idea was an excellent one, and and in fact he has already incorporated into one of the school books a condensed statement regarding the breeding season of our game birds, to educate the children when and why they should be protected from harm. Even our statutes perpetuate the misapplication of the names of our fishes. Salmon trout are provided with a close season in one of our States, and there are regulations concerning the catching and possessing of a fish of that name, when there is not a single salmon trout in any water in the State. Of course the fish the statute intends to protect is the lake trout, but it has been, by some, called salmon trout and the law confirms the error. We have a salmon trout on the Pacific coast, better known, perhaps, as the steel-head. Great Britain has a salmon trout also, but neither that nor the steel-head is the lake trout of New England, New York and the Great lakes.

Very recently, to my surprise, I heard a witness in the Supreme Court in New York State, testify that the fish which is properly the pike, *Lucius lucius*, was a mascalonge. The man was perfectly honest, as I found when I made a visit to the waters from which the fish were taken, for I learned from the residents about the lake in question that the fish were called "mascalonge" or "pickerel," as though they were interchangeable terms. The idea seemed to be, as near as I could get at the facts from my private investigation and from the testimony in court, that the fish was a pickerel up to a certain size, and when it grew beyond that size it was a mascalonge.



Part of Cheek and Gill Covers of a Mascalonge.

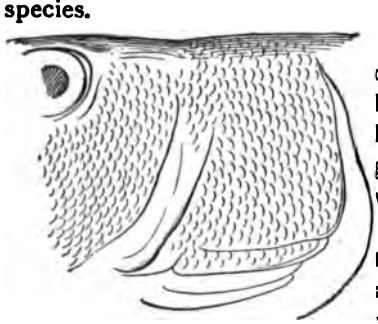
The three members of the pike family best known to anglers, the mascalonge, the pike and the pickerel, are easily separated, one from another, by the formation of the scales on the cheeks and gill covers. The mascalonge has scales on the upper portion of both cheeks and gill covers, about eight rows of scales, and below these scales, cheeks and gill covers are bare. This mark is constant. The mascalonge may come from the St. Lawrence river and have round brown spots on a light ground; from the Ottawa river or Wisconsin, and have no spots at all; or from Chatauqua lake in New York, and have irregular



Part of Cheek and Gill Covers of a Pike.

splashes or blotches of brown on a lighter greenish ground; they are one and all mascalonge and will have the scales on cheeks and gill covers as I have described.

The pike, which is generally called "pickerel," will have scales all over the cheeks and on the upper portion of the gill covers, the lower portion being bare. This fish has bean-shaped, lemon-colored spots on a darker ground, but without reference to color, the scales on cheeks and gill covers will determine the species.

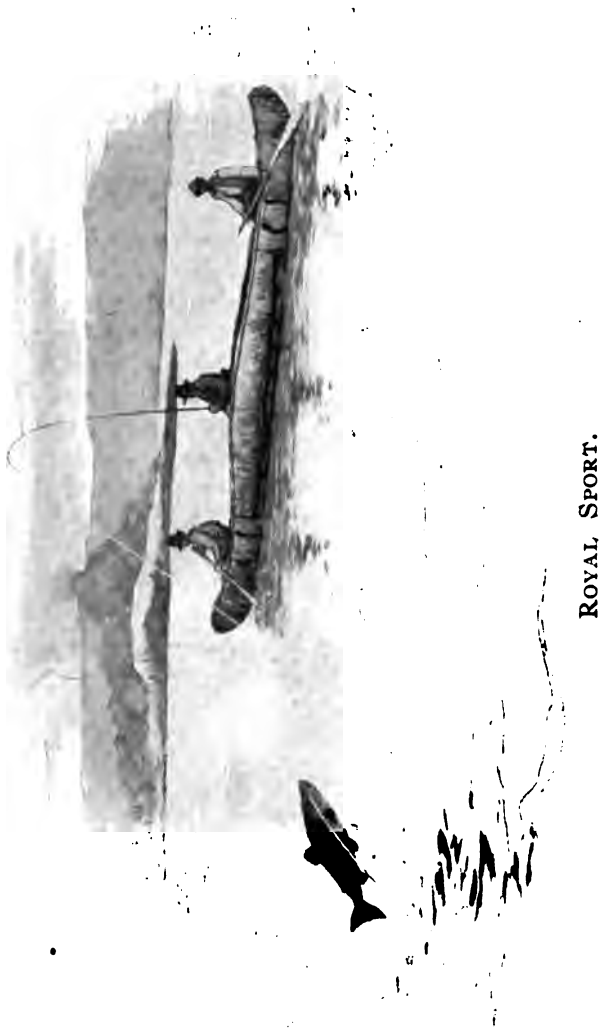


Part of Cheek and Gill Covers of a Pickerel.

The pickerel proper, "pond pickerel" or "grass pickerel," has scales all over both cheeks and gill covers. This fish has reticulated dark lines on a lighter ground, but the coloring varies with the water in which it is found.

There is no reason that I can see why these fish should be confounded, one with another, and there is certainly no reason why each species should not have its proper name applied to it, no matter where it is found.

Reforms of this sort are not easily worked out, but concerted action on the part of anglers will bring about a change devoutly to be hoped for. One trouble has been that the anglers themselves did not always recognize the difference in the fishes, but the three pikes are here represented so that all who run may read.



ROYAL SPORT.

THE GAMY BASS.

CHAPTER XIX.

GAME AND FISH OF MAINE.

THE RANGELEY LAKES REGION.

IN no other section of the continent is found such a wealth of game and fish as is contained within the borders of the State of Maine.

Its forests, which cover nearly one half of the State, having, it is estimated, an area of about 9,000,000 acres, abound with the large varieties of game, moose, caribou, deer, bear, etc., together with immense numbers of the more valuable game birds, while its lakes and rivers teem with the most desirable game fish, such as sea salmon, Sebago salmon, lake and brook trout, and bass. Some idea of the great possibilities available to the angler may be formed, when it is stated that the lakes and large ponds exceed 1,600 in number, and the surface area of these, together with that of the principal rivers, is in the neighborhood of 3,200 square miles.

That these almost unbounded resources have attracted wide attention, goes without saying, and the "Pine Tree State" has for years been the mecca to which sportsmen from all localities have turned their steps. The number of these visitors is prodigious, and it increases annually in a surprising degree. It is stated that upwards of 7,000 sportsmen and anglers visit the Rangeley lake system alone, and that the total yearly revenue that the State in various ways derives from those who visit her with rod and gun, is upwards of $3,000,000.

Notwithstanding the immense inroads that these armies of sportsmen have made on the stock of game and fish, the supply does not seem to diminish, but, on the contrary, it has increased in a wonderful degree. In the early "sixties," when the writer was a regular visitor to various sections of the State, deer and other large game were so scarce that when tracks or other signs of the animals were found, they were pointed out as curiosities.

The State has, however, by the enactment of wise game laws and the rigid enforcement of them, succeeded in not only saving those animals from utter destruction, but has given them such protection that they have increased and multiplied until they are now in many localities so abundant

that he is a poor hunter, indeed, who cannot secure in his autumn outing his full quota of the magnificent animals which abide in the great forests that he visits.

The numbers of fish have also, in many of the favorite waters, been increased by a judicious system of artificial propagation and stocking by the State authorities, and valuable species have been introduced and become abundant in lakes where, a few years ago, the supply of game fish was comparatively meagre.

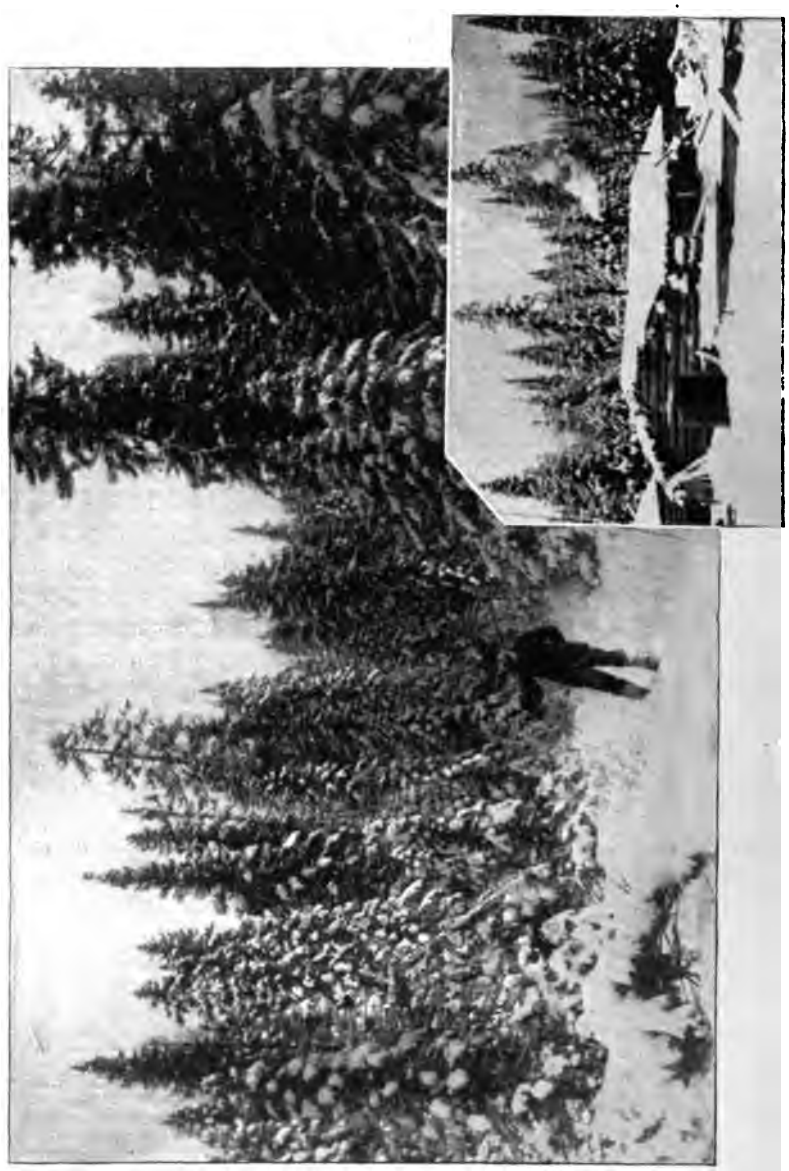
Maine has thus become a vast game preserve, the most valuable one in America, and one that cannot become exhausted if the present existing conditions are allowed to continue. It is a preserve not for a favored few only, but it is opened to all who wish to visit it, and its bounties are freely and munificently offered to those who desire to enjoy them.

Maine is divided by sportsmen into several great sections or regions, according to the various water-systems or other natural features which characterize them. Of these the Rangeley or Androscoggin lake system is one of the greatest favorites. There are several routes by which these lakes may be approached.

At Portland the cars of either the Grand Trunk or the Maine Central railroad may be taken according to the point of destination of the tourist. If he wishes to reach the lower lakes in the system, the first-named route will, perhaps, be preferred. At Bryant's pond the train is left and the stage coach for Andover taken, and thence he is carried by buckboard twelve miles through the woods to a point on the lower Richardson lake, where a steam launch awaits him and he is conveyed to the middle dam or upper dam, as he prefers.

This route is by many preferred to others on account of the novelty of the trip and the beauty of the scenery through which it is taken. Of course the experiences are much rougher than are met with in the luxurious cars which run to the lakes at other points, but many who visit these localities go for the sake of "roughing it," and they could not be induced to abandon the ride on the old stage coach and the antique buckboard for more comfortable modes of conveyance. If the point of destination is still farther down the lakes the cars of the Grand Trunk road are left at Bethel, and stage is taken from that place to Cambridge or Upton on Lake Umbagog.

Generally, however, the upper lakes are the objective points, and these are reached by cars on the Maine Central railroad to Farmington and narrow-gauge road *via* Phillips to Rangeley, or by the new railroad — the Portland & Rumford Falls — which has a terminus at Bemis, at the point where Capt. Fred Barker has had his camps for many years. The Rangeley lakes, therefore, are very accessible, and as they are traversed by swift and commodious steam launches, which convey tourists to the many camps and summer hotels which have been located for their accommodation, it is



A Hunter's Camp in Maine in Winter.

not to be wondered at that this region is very popular as a resort for sportsmen.

The upper or Rangeley lake is the only one of the series whose shores are bordered with farms. It is one of the largest of the chain, and its waters contain great numbers of landlocked salmon and large trout. While these fish are taken in the spring chiefly by trolling, and in the summer with bait, there are many places at which good fly-fishing may be had. The writer has, in times past, found splendid sport in the cove near Greenvale, at the head of the lake, and about the shores of South Bog island, and doubtless the fly-rod may still be used in those places with good success. There are also several large ponds in the vicinity of Rangeley on which good fly-fishing may be obtained in the summer.

DON'T YOU LONG FOR THE TIME—?

There is good partridge shooting in this neighborhood, and sometimes very fair woodcock shooting, and back in the wilderness moose and deer abound.

Connecting this lake with the second in the series is the Rangeley river, into which empties the Kennebago river. This stream is a famous one, and many large fish have been taken from its waters. It is fed by Kennebago lake, Little Kennebago, John's pond, etc. These waters are all magnificently stocked with trout, and are great favorites with anglers. In the autumn they are much frequented by hunters also, and the number of deer and other game obtained is very satisfactory.

The second in the Androscoggin series is Mooselookmeguntic, which has for its northern arm another lake named the Cupsuptic. The shores of both, which are covered with a dense forest growth, rise rapidly as they recede, and in many places soon attain the altitude of high hills and mountains, presenting to the tourist many beautiful stretches of scenery as he glides along in one of the swift little steamers that ply upon the lake. These forests also are tenanted by large game, and are a favorite resort for hunters. A great many very large trout and landlocked salmon are taken in these lakes, some of the favorite fly-fishing places being at "Stony Batter," and the reefs about half a mile from it, "Brandy Point," and the coves around "Student Island," and at Bemis.

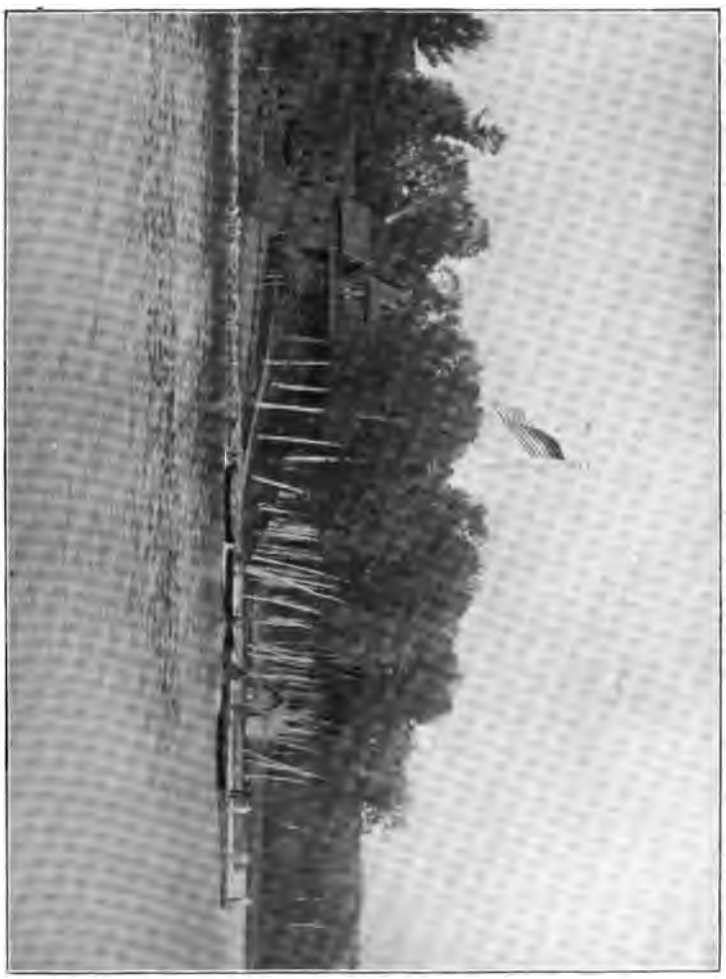
In addition to the public houses, there are many private camps and cottages on the shores of this lake, among which are those of Senator Frye, of Maine, E. B. Haskell, of the Boston *Herald*, and Col. H. T. Rockwell, of Boston. Senator Frye is an enthusiastic fisherman, and is on record as having landed near his camp the largest trout ever taken with a fly, its weight having been over ten pounds. Mr. Harry Dutton, of the firm of Houghton & Dutton, owns a fine camp on Cupsuptic lake, where he spends a number of weeks in the summer.

One of the most attractive camps, or fishing lodges, in this section is the Lake Point cottage, owned by Messrs. R. A. Tuttle and C. F. Hutchins, of Boston, Peter Reid and Moses E. Worthen, of Passaic, N. J., and Wm. P. Aldrich and George Clinton Batcheller, of New York. Its location is a delightful one, on a birch-covered point, near the outlet of Rangeley lake, and it is a familiar landmark to the frequenters of that region.

At the foot of Lake Mooselookmeguntic is located the famous Upper dam. At this place a handsome camp has been erected, large enough to accommodate nearly one hundred guests, and it is a favorite abiding-place with anglers from all parts of the country. Below the dam in the river are some of the finest and most celebrated pools in the State, and the number of large trout that have been taken from them is beyond computation.

The writer has had many successful days on these pools; his best catch was made with a six-ounce rod, with which he took in four hours a trout weighing seven and one-fourth pounds, another of five and one-half pounds, one of three pounds, and two that weighed over two pounds each. But that catch has been exceeded in a number of instances. On one occasion, Mr. T. B. Stewart, of New York, took in one day one trout weighing four pounds, two weighing five pounds each, one of seven pounds, and one of eight pounds, and on another day hooked and saved on the same cast, and with a six-ounce rod, two trout that weighed eight pounds and eight and one-half pounds, respectively.

Of course such good fortune does not come to every angler, but there are large trout and landlocked salmon still left in goodly numbers at the



LAKE-POINT COTTAGE, RANGELEY LAKE, ME.

CELEBRATED TROUT POOL BELOW THE UPPER DAM, MAINE.

Upper dam, and the fly, if dexterously and patiently cast, will certainly lure them from the deep pools in which they lie.

The next lake in the series is the Mollechunkamunk, sometimes called the upper Richardson lake. This is a favorite resort with many, and on its shores are erected some of the handsomest and most expensive private camps in this region. Near the head of the lake are the Richardson ponds, which are noted for the great number of deer that are found in the forest around them, and for the fly-fishing for trout, which is in the summer very fine. There are many places on this lake where large trout are obtained, and good fly-fishing is to be had at the mouth of Beaver and Metalic brooks, and off the great point at the foot of the lake called Metalic point.

Photo. by W. L. Underwood.

HEAD-WORKS TO A RAFT OF LOGS ON A MAINE LAKE.

This lake is connected with the Welokennebacook or lower Richardson lake by a long strait called the "Narrows," in which at the proper season, capital fly-fishing is to be obtained. A well-known fisherman, a number of years ago, took in two days' fishing, sixty trout that weighed 108 pounds at a single point — the outlet of a small brook — in the Narrows, and it is still a favorite spot with anglers, the fish being, apparently, as abundant as ever. At the outlet of this lake there is good fly-fishing, both above and below the Middle dam, but this locality is not as good as it was before the new dam was built.

In those days great catches were made in "the Run" above the dam, and many of them have gone into the fish books as a matter of record. The best catch ever made by the writer at this place consisted of seven

trout that weighed 36½ pounds in the aggregate, but that has been excelled.

One mile below the middle dam is a handsome sheet of water named the "Pond in the Woods," in which good fly-fishing may be obtained both in the spring and autumn, but trout fishing practically ceases at this point, there being but very few fish now taken in the five-mile rapids which connect the upper lakes with Umbagog, the last in the Rangeley system.

This lake, which was formerly famous for its abundance of trout, now contains but very few, the pickerel which were in some way introduced thirty or forty years ago, having exterminated them. On Umbagog, the autumn duck shooting is exceptionally good, and the shores which surround it are famous hunting-grounds for partridge and woodcock.

Tributary to the Androscoggin river, which flows from this lake, is the Magalloway river, which takes its rise in the beautiful Lake Parmachene, that gem of the wilderness, which lies far to the north. In this river there are many places above Aziscohos falls where good trout fishing may be obtained, and Parmachene is famous for its supply of good-sized silvery trout; but as there is now no public house on the lake, the angler or sportsman who visits it must be prepared to "camp out" and depend upon his own supplies for subsistence. This lake may now be reached very easily by a portage road of a few miles in length from Cupsuptic lake. The country surrounding it is an unbroken wilderness in which deer abound.

As before stated, the Rangeley lake country may be reached by a variety of routes, and tickets may be obtained at the principal railroad or steamboat offices for any desired point, and if the tourist wishes, he may obtain tickets which will permit him to go by one route, traverse the entire chain, and return by another line. It is an ideal country, not only for those who hunt and fish, but for those also who are in search of health or who have a love for beautiful scenery.

The vast forests of spruce, hemlocks and pines give to the air a delightful aroma and purity, in which invalids quickly recuperate, and the scenic views are in every direction beautiful in the extreme. The magnificent panorama which may be witnessed from Bald mountain on the upper lake, that from "B hill" in Upton, and the view which may be had from the summit of Mt. Aziscohos on the Magalloway river, cannot be surpassed in the eastern portion of the continent, and they are alone well worth a visit to the region of the Rangeleys.

THE DEAD RIVER REGION.

A GENERATION ago the sportsman who visited the wilds of Maine usually found but primitive modes of conveyance to his point of destination. After leaving the railroad, which had brought him from the city, his journey was continued for many miles in old-fashioned mail wagons and on buckboards, or in farm wagons. In many instances even these were not available, and he plodded along on foot over the roughest "tote roads" or trails, his baggage being hauled on wood sleds or carried on horseback. If his objective point was one of the great lakes, he was obliged to engage guides and a boat in advance of his contemplated trip, and was rowed to the place he desired to reach.

In the opinion of many, the old-fashioned are still the preferable methods of travel. They say that they go into the wilderness, not for luxurious modes of transportation, not for especial comforts and the conveniences that are to be found at home, but rather for the great change, the absolute departure from their ordinary lives, that the outing gives them. To this class of sportsmen the innovations that are everywhere visible in the way of extensions of railroads in all directions which enable tourists, "their sisters, their cousins and their aunts" to step from the cars upon

Photo. by Dr. M. A. Morris.

COMFORTS OF CAMP LIFE.

the shores of the lakes, and the establishment of numerous steamers upon all the principal waters, are not particularly welcome. These men belong to the "old school" of sportsmen who delight in the vigorous exercise that is obtained with the oars or on long extended and arduous tramps, and enjoy all the hardships and rough experiences that may be had.

To them the bark camp or tent pitched in the wilderness, the fragrant bed of hemlock and balsam boughs, the camp fire and the primitive modes of cooking are joys of inexpressible sweetness; pleasures that they fondly anticipate until they are realized, and are remembered with intense delight after they have been tasted.

But there has sprung up another class who, not having been educated in the rough school, like to take their outings as comfortably as possible. To meet their wants, innumerable camps or sportsmen's hotels have been built in various sections, steam launches traverse the lakes and rivers in all directions, and new railroads and extensions of old ones have been carried into the very heart of the wilderness.

Some idea of the improved facilities of transportation that are now available upon these waters may be had when it is stated that there are now over one hundred and forty boats upon the inland lakes of the State propelled by steam, and licensed by the steamboat inspectors, and in addition to these are a great many others propelled by oil, naphtha and sails, all of which are run and maintained solely for the accommodation of sportsmen. This large business interest has grown up within the memory of men who are not yet considered old, and it plainly demonstrates the great increase in the interest in field sports of the higher class that is now felt.

The new railroad, the Franklin & Megantic, which is reached by the Maine Central from Portland to Farmington, at which place it connects with the Sandy River road to Strong, where the F. & M. road begins, has brought into easy access a section of country known as the "Dead river region," which was, before the construction of the road, pretty difficult of approach. This railroad terminates at Carrabasset station, from which a stage conveys the traveler to Eustis, the central point of one of the most interesting sections to sportsmen in Maine.

While the trout in this region do not attain the enormous size of the fish that are taken in the Rangeley lakes, they are in many localities very numerous, and good-sized ones are often captured.

For the hunter the various localities that are reached from Eustis are exceedingly valuable, the number of large game annually killed among them being very great. A number of roads and trails from Eustis lead to the various camps or hotels which are each located at some especially desirable point.

Among these the King and Bartlett lake camps, sixteen miles from

Photo. by Capt. Joseph B. Taylor.

"THREE AT A CAST."

Eustis, are among the most popular. They are located on the shore of the beautiful lake, and the mountain scenery that environs them is very picturesque and beautiful. There are a great many lakes, ponds and streams in this neighborhood available to anglers, and the surrounding forests are noted for their abundance of large game. Among the best water near at hand is the celebrated Spencer stream, which may be easily fished with the fly for five miles of its length. On this stream last season a Philadelphia angler took over eight hundred trout in eight hours, most of which, of course, he returned to the stream. Big Spencer lake is also celebrated for the great numbers of trout and togue which inhabit its waters.

Tim pond is another favorite resort. It is a beautiful little lake about ten miles from Eustis. In consequence of its great elevation of over 2000 feet above the sea level, its waters are always cold, and on this account good fly-fishing may be had throughout the season.

Deer and partridges are very abundant in this neighborhood, and moose and caribou are also occasionally found. The trout in this little lake are noted for their gaminess and delicious table qualities, and, although they are annually taken in immense numbers, they are as plentiful as ever.

At Round Mountain lake, which is also about ten miles distant from Eustis, but in a different direction, there is good fly-fishing throughout the season, and large game may be obtained. It is surrounded by mountains and lies in the midst of the primeval forest at an elevation of 2,850 feet above sea level, and, on account of the great purity of the air, is a most desirable locality for invalids, particularly those who have suffered from malaria or nervous prostration.

In the neighborhood of Flagstaff, which is about eight miles distant from Eustis, there are several large ponds in which trout abound. Among these Alder pond, Flagstaff lake and Walker pond are great favorites.

There is an other locality near this place, named "Joe Pokeham's bog," that is particularly noted for its abundance of deer, of which great numbers are killed every year. Moose and caribou are also found sometimes and partridges are very plenty.

Flagstaff is a small settlement with an historical name. It was one of the camping places of Arnold in his famous northern expedition, at which he erected a flagstaff and unfurled the stars and stripes for the first time in that section of the country.

The trout that have been mentioned as inhabiting the lakes and streams in this region are, of course, the spotted or brook trout, so-called; but in some of the larger bodies of water, the lake trout, togue, or tuladi, are also taken. These, while not being so gamy, nor so desirable in an epicurean point of view, as the others, often give good sport, particularly

CAMPS AT BEAVER POND, MAINE.

when one of large size and strength is hooked. It has been stated that the spotted trout are not as large as those monsters which are taken in the Rangeley lakes; this may be accounted for, perhaps, by the less abundance of food that is available to them. In the Rangeleys there are incredible numbers of minnows, dace and shiners, upon which the trout feed, and these are far less abundant in most of the waters of the Dead river region.

That the attainment of rapid growth and great size of these as well as other fish depend upon the quantity of food that they obtain, has been shown in numerous instances. A recent example in the experience of Mr. A. N. Cheney, the well-known fish culturist of New York, is very interesting. By some accident a yearling brown trout found its way into a pond in which there were a large number of trout fry; nine months later the brown trout was captured, and was found to weigh five and one-half pounds, while ordinarily it would have weighed not over a pound; it had waxed and grown fat on the unlimited feast that was always before it.

MOOSEHEAD LAKE REGION.

THAT great inland sea, forty miles in length and from two to eighteen in breadth, called Moosehead lake, has long been a favorite place of resort with American sportsmen. Its praises have been sung so many times and its great attractions have become so widely known that there remains but little to be said in relation to them.

It is reached both by a branch of the Bangor & Aroostook railroad, from Bangor, and the new Maine Central "cut-off" *via* Newport, Dexter and Dover, the terminus of both lines being Greenville, at the foot of the lake, where junction is also made with the Canadian Pacific road.

Before reaching Moosehead, however, there are several most desirable points for sportsmen to visit, although they are usually passed by. Among these are the famous Sebec lake and Sebec pond, in which large togue, or lake trout, are taken, together with spotted trout, which are very abundant in the streams which empty into them. These waters are very accessible from the town of Milo, near Milo junction, and will repay the angler for a visit. Milo is also a point of departure by stage for the great Schoodic lake, eight miles distant; this is not one of the chain of lakes that is approached by way of Eastport and Calais, but belongs to a different system, although the names are identical.

The Schoodic lake now referred to, is a beautiful body of water located in the midst of the wilderness, and the scenery surrounding it is picturesque in the extreme. It is not as much frequented by sportsmen as many other localities, but it is one of the most prolific in fish and game. Huge lake

Photo. by J. W. Bedelle.

VIEW OF THE WEST BRANCH OF THE PENOBSCOT.

Photo. by Capt. Joseph B. Taylor.

AMBEJEJUS RAPIDS ON THE WEST BRANCH, PENOBSCOT RIVER.

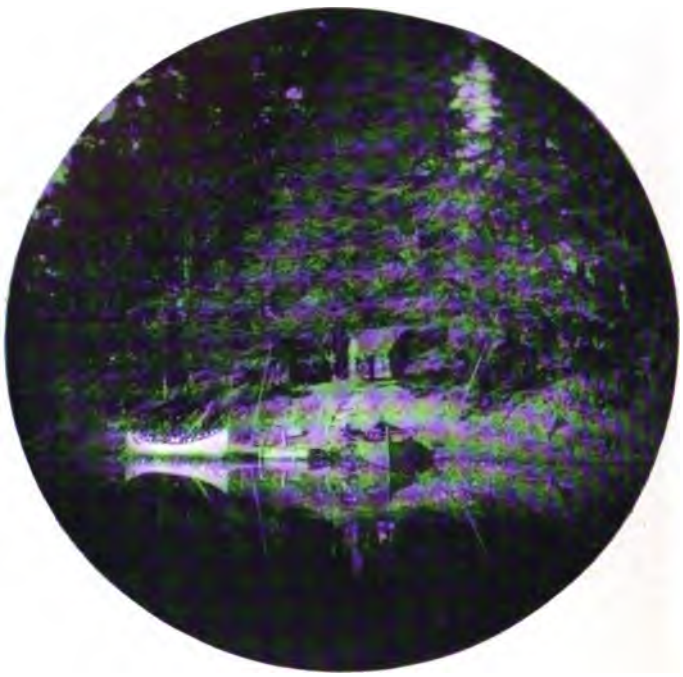


Photo. by J. B. Forsyth and C. D. McKey.

CAMP AT BIG ISLAND, WEST BRANCH OF PENOBSCOT RIVER.

Photo. by J. W. Bedelle.

OLD PAMALO PEAK, MOUNT KATAHDIN, ME.

trout, sometimes twenty pounds in weight, are taken from its waters; spotted trout are also abundant, and landlocked salmon have been introduced, and will soon afford the angler exciting sport. Deer and partridges are very numerous in the hardwood growth which surrounds it, and moose and caribou are not infrequently seen.

This lake is now reached directly by the Bangor & Aroostook road, which has a station located upon the shore; this makes it much more easy of access than it was two or three years ago.

The town of Greenville, which is situated at the southern extremity of Moosehead lake, has, for years, been the point of departure to the various localities that are visited by sportsmen on the lake, or accessible from it. These are almost numberless, and each has its especial attractions. Many sportsmen prefer to go at once to the famous Mt. Kineo House, which is situated about midway up the lake, near the base of the mountain from which the hotel is named. At this hotel they make their headquarters, and from time to time take excursions more or less distant in search of fish or game. Many, however, who do not care to stop at a large, fashionable hotel, but prefer less pretentious quarters, depart for some of the camps or small hotels that abound. Batteaux or canoes are taken for long jaunts, and the distances that may be traversed by water, with now and then a short portage, are very great.

There are numberless ponds and streams in the neighborhood of the lake, which contain spotted trout, and the devotees of the fly-rod may have all the sport they desire. In the great lake, togue of large size are taken, and at numerous points up and down the shore good fly-fishing is to be had. If the sportsman wishes to make more extended trips he can follow the northwest carry from the head of North bay, at the upper end of Moosehead, to the waters of the Penobscot river, on which he can travel almost any distance in canoe, or he can take the northeast carry from the same bay to the great Chesuncook, from which he can, by water and portages, traverse an almost endless succession of lakes and streams.

These are all tenanted by trout, both lake and spotted, and as this is also one of the most famous regions in Maine for big game, the angler as well as sportsman finds ample compensation for the difficulties of the trip.

The scenery through which one passes is always beautiful, and sometimes superb, Mount Katahdin being often in view, together with ranges of other mountains of less magnitude and grandeur.

There are other waters in the neighborhood of Moosehead, one lying to the west of it, named Brassau lake, being quite celebrated. It is seven miles in length, and is reached by way of Moose river, and has numerous tributaries which are noted for the abundance of their trout, and in the fall wild ducks are shot in great numbers.

Among the other desirable points around the lake for anglers are

FOSTER KNOWLTON POND, NEAR MOUNT KATAHDIN.

IN CAMP NEAR MOUNT KATAHDIN.

the chain of Roach ponds, West Branch pond, Spencer pond and stream, and Little Spencer pond, in all of which trout abound.

The Canadian Pacific railroad, also, now brings into easy accessibility a number of beautiful small lakes.

The train is taken at Greenville, and at intervals of only a mile or two, as it journeys westward, these are passed.

Among them the Holeb and Attean lakes and Long and Indian ponds are the most noted. At Holeb lake there is, in addition to the public hotel, a number of handsome club-houses, owned by New Hampshire and Boston sportsmen, and many are the fine catches of fish that are made in the crystal waters of this lovely pond.

Attean lake is about four miles in length, and contains a number of pretty wooded islands. Its shores are covered with forest growth, and rising, as they do, abruptly into mountain heights, give the little lake a most picturesque surrounding. It has a hard, gravel bottom, and the water is cold and clear.

It is an ideal spot for the angler, trout being very abundant and often of large size.

Game is also very plentiful around this lake. Last season over one hundred deer were shot here, together with ducks and partridges without number.

In all the ponds and small lakes of this section, ducks are much more numerous than they are in the Rangeley lake region, probably on account of the feed that they obtain here in the bogs and meadows, which is absent in the other localities.

For the accommodation of sportsmen, seventeen log cabins have been erected at Attean lake, each with a great open fireplace, something after the plan of those erected at Bemis by Captain Barker. These will be a great convenience to sportsmen, who wish for a little privacy, and will be appreciated by gentlemen who are accompanied by their families.

The great majority of anglers who visit the Maine fishing localities use the artificial fly, the old-time bait fishermen having been converted to the daintier and more sportsmanlike and effective methods with the fly-rod.

The question which is so often asked, "Which are the best flies for Maine waters"? is a difficult one to answer.

It depends upon the season, and the condition of the water. The writer has had good success in very early spring, when others were depending almost entirely on bait fishing and trolling, with a medium-sized yellow-bodied fly, with a yellow or white hackle and scarlet and white wings, which he used as a "sinker" instead of surface fly. It is not named in the books, having been tied to order. For later fishing the following have proved very taking: Montreals, with red body and yellow body, and light and dark wings; stone fly, with brown body; black gnats, with lead-colored

wings and black wings; Jenny Lind; hackles, red, brown and gray; toodle-bug, which resembles the Montreal, but has a yellow, brown and blue body; quack doctor, same as Montreal, but with a silver body; silver doctor of different sizes and styles; Parmachene beau, moose, with yellow body and hackle and wings of Chinese pheasant ruff; jungle cock, Parmachene belle, cinnamon, McBride, Rangeley fly, Metalic point fly, Grizzly King and Queen of the waters.

An assortment of these, with a few small salmon flies, such as Jock Scott, Fairy and Durham Ranger, will prove amply sufficient for all conditions of weather and water, but it may be added to as far as the inclination and purse of the angler will permit. Trout and salmon are very capricious fish, and they sometimes require many trials before the fly is found that will tempt them to rise.

Photo. by Capt. Joseph B. Taylor.

BARBER SHOP IN CAMP.

Photo. by J. W. Bedelle.

HUNTING CAMP AT LAKE MILLNOCKET, ME.

Photo. by Charles S. Eaton.

A HUNTER'S CAMP IN THE AROOSTOOK COUNTRY.

THE AROOSTOOK REGION.

THE new Bangor & Aroostock railroad, which was completed in 1894 to Presque Isle and Caribou, has opened up a country that had before been rarely penetrated except by lumbermen and the most venturesome of sportsmen. Its length is 197 miles, and almost the entire distance is through the wilderness in which are countless rivers and lakes, which abound with fish, while the forests are probably better stocked with game than are those of some other sections of the State.

The first lake on the line after Milo junction is passed is the Schoodic, of which mention is made elsewhere. It is now very accessible, the road having established a station on the shore of the lake. The next waters of importance are the Seboois and Endless lakes, reached from the station at West Seboois. The scenery surrounding them, particularly the Seboois lake, is very picturesque, and the fishing is superb. There are several very comfortable camps on these waters, and at Trout Pound, six miles from the station, there is a group of cottages built for the accommodation of sportsmen. One could hardly find a pleasanter locality for an outing than this, and the canoeist would have an unlimited scope for adventure.

The next station is Norcross, from which departure is made for the camps and hotels on the chain of lakes which lie between the station and Mount Katahdin. These are all traversed by small steamers, and are famous for their great supply of trout and for the abundance of large game in their neighborhood. Among these lakes the Nahmakanta, Pemadomcook and Millnocket are the principal, but there are almost innumerable smaller ones connected with them, and by ascending the west branch of the Penobscot river, to which these lakes are tributary, the great Lake Chesuncook may be reached by the canoeist. This region is particularly noted for its abundance of moose. It was at the head of Pemadomcook lake that one of the largest moose ever killed was shot, its weight, after the animal was dressed, reaching the high figure of 1,123 pounds.

Lake Millnocket is also reached from the station of the same name by team, a distance of six miles. There are two fine camps on the lake. One mile beyond Norcross, at North Twin dam, are several comfortable log-cabin camps. Their location is particularly attractive, being on the shore of the lake, in full view of great Katahdin. Grindstone, the next station on the road, is the point of departure for the upper waters of the east branch of the Penobscot, whose tributary lakes and streams are favorite resorts for the sportsman. The distances that may be here traversed in the canoe are very great, and an immense variety of sport is attainable. By portages other lakes may also be reached, the famous Chamberlain, Heron and Allagash waters being accessible. These are all in the

Photo. by Capt. Joseph B. Taylor.

VIEW OF NORTH TWIN LAKE, NORCROSS, ME.

Photo. by E. W. Shaw.

HULLING MACHINE RAPIDS, EAST BRANCH OF THE PENOBSCOT.

very heart of the wilderness, and in order to reach them the sportsman must have pluck and a willingness to endure rough work, and possibly some hardship, but they are well worth visiting.

The next station above Grindstone is Staceyville, at which place tourists take teams for Mount Katahdin. The trail is fairly good, and buckboards are used for the journey. Above Staceyville, on the line, is the station of Island Falls, from which Lake Mattawamkeag is reached, the distance being but a few miles. It is quite celebrated among anglers, its waters affording good fishing for lake trout and very large perch, and the streams which empty into it are well stocked with good-sized spotted trout. The surrounding country is also noted for an abundance of deer and partridges.

At Patten junction, farther up the line, the tourist leaves the road for Patten, whence teams are taken for the great chain of lakes on the Seboois river. Seboois Grand lake is also reached from this point. Ten miles from Patten are the beautiful Shinn ponds, which abound with trout, and in their neighborhood are found deer in great numbers. There are good camps on these ponds, and at the celebrated Trout brook farm. On Seboois Grand lake, Jock Darling, the famous Nicatous guide, has a number of comfortable camps, and he has also built others at Snow Shoe lake and White Horse lake. Splendid fishing is found in this locality, and large game is so abundant that a party of four succeeded in shooting, in a short time and under most unfavorable hunting conditions,—the ground being covered with crusted snow and a rain falling,—three caribou, three deer and a moose, the latter falling before the rifle of J. B. Burnham, of *Forest and Stream*.

At Ashland junction the road divides, a branch running to the little town of Ashland, and the main line running to Houlton and thence north to Caribou and Aroostook. The region through which the branch passes for three fourths of its length from the junction offers no great attractions to the angler, there being but two or three small lakes and a few streams worth fishing. It is, however, a famous deer country; moose and caribou are often met with, and partridges are very abundant.

At Masardis the train is left for the famous fishing resorts of the upper waters of the Aroostook river, and the almost innumerable lakes which are scattered through that region. From Masardis to Oxbow the journey is made by team over a fairly good road, and from that point a canoe is taken for the inner lakes.

Here one may enjoy the delights of the rod to his heart's content. The Millnocket lake and the Mansungun series of lakes are great favorites; at all of them good camps have been erected for the accommodation of sportsmen, and there are also camps on other lakes in the vicinity. If the angler wishes to penetrate the wilderness still further, he can reach with canoe and by portages over "tote" roads the famous Allagash waters and

the tributary lakes and streams. In fact there is hardly any limit to the excursions that may thus be made in every direction.

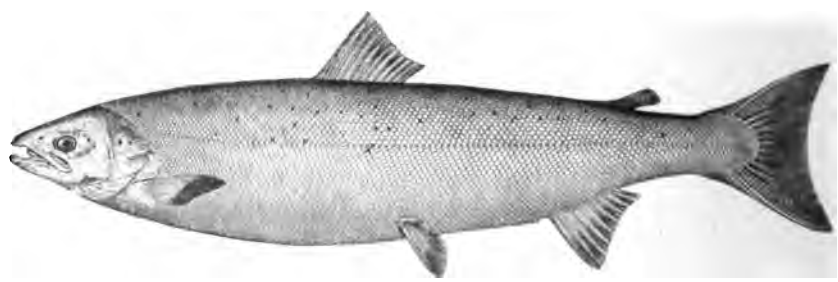
It is an ideal region to visit if one loves to be in the "forest primeval," for aside from the hunting camps that are found at intervals of ten or a dozen miles, not a sign of civilization is to be met with.

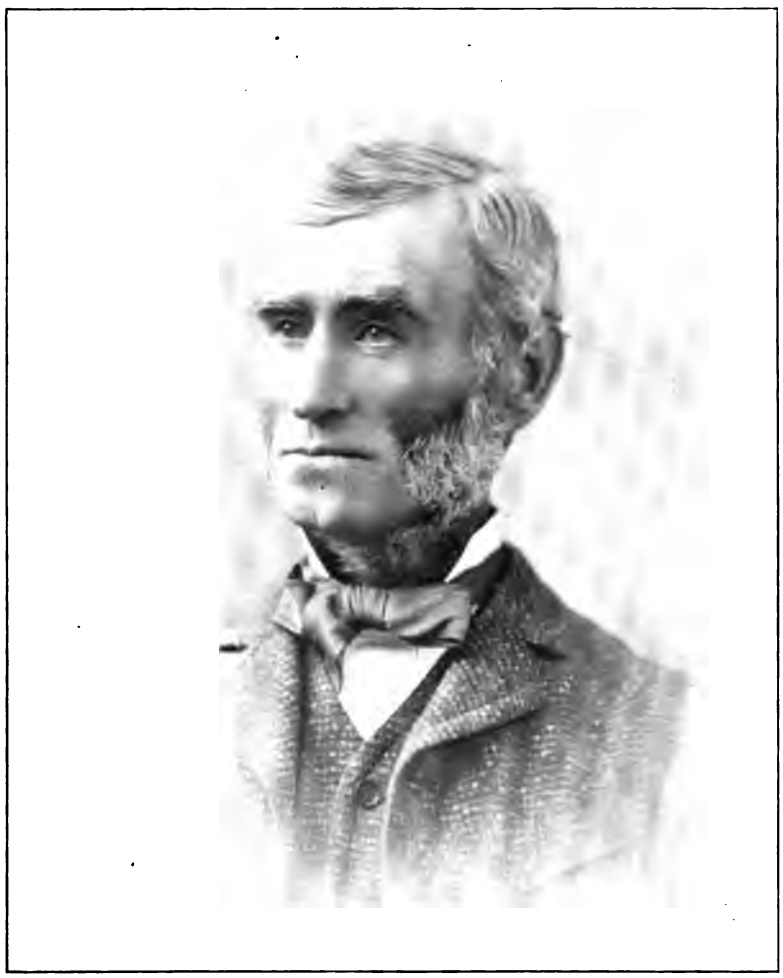
These lakes and streams abound with trout, often of good size, three to six-pound fish being often taken, and in some of the waters togue are caught, and large ones, too. The togue is sometimes called the "tuladi," and is often known as the fork-tailed lake trout in contradistinction from the square-tailed spotted brook trout; it is not as delicate on the table as the brook trout, but it usually makes quite a fight when hooked and, furnishing as it does a variety for the angler's recreation, is a fish by no means to be despised.

The region about these waters is one of the very best for moose in Maine, more having been killed there than in almost any other locality; deer and caribou are also plentiful, and partridges abound.

At Ashland one has another great choice of fishing localities. He can ascend the Aroostook river in canoe, and find in its tributaries an abundance of trout, or he may take a team to Portage lake, ten miles distant, from which he can, with canoe, reach the Fish river lake on the west, or the upper lake and the chain of Eagle lakes, more to the north, by which he can ascend the Fish river, even to Fort Kent on the St. John river. It is a magnificent trip, and the angler who is an enthusiastic canoeist would greatly enjoy it. Trout are so abundant in these lakes and streams that there is almost no limit to the number that may be taken; it has been stated that a party of four anglers brought out from a week's fishing at Big Fish lake, 114 pounds of dressed trout, which they caught, in addition to the great number they and their men used, and many fishermen have declared that it is one of the very best shooting and fishing regions in the State.

In some of these lakes landlocked salmon have been introduced, and they have already been taken of good size. When they become abundant, as they will in the near future, anglers will find an additional incentive to visit this region.





Hon. HENRY O. STANLEY, DIXFIELD, ME.

For many years Commissioner of Inland Fisheries and Game of Maine.

CHAPTER XX.

The Landlocked Salmon.

By Hon. HENRY O. STANLEY.

In giving the history of the landlocked salmon of Maine, I shall not undertake to give it from any scientific standpoint, but merely from conclusions I have arrived at from twenty-five years' experience in their propagation and distribution in the ponds and lakes of this State. Not only in breeding them is my opinion based on, but also in observations of their habits in their native haunts and on their spawning grounds.

Twenty-five years ago there were only four places in Maine where these fish were to be found, — *viz.*: Sebago lake (tributary of Presumpscot river), Green lake (tributary of Union river), Grand lakes (tributaries of St. Croix river), and Sebec lake (tributary of the Penobscot river). All these lakes, before the advent of dams, were accessible to and frequented by the Atlantic as well as the landlocked salmon, with an open route to and from the sea. Why the fresh-water variety was called "landlocked" I do not understand, and the name seems to be a misnomer. There is and always has been a free run to the ocean. They have never been landlocked or confined to fresh water. As to their origin, I do not pretend to know. I can but think they are one and the same fish.

All salmon must have started in fresh water. There they were born and bred. If so, the question is: "Were they inland or sea salmon"? It seems to me probable that some of these drifted down to the sea, where they found more congenial food and water, returning to their breeding grounds at the proper season to deposit their eggs. In time, the instinct to go to the sea was established in their offspring, and they became the salmon of the sea. There was a portion that did not inherit or acquire that instinct, and they are the landlocked salmon. Even many of these seem to have a strong desire to drift down stream at certain seasons of the year. So much so, that we consider it necessary to screen the outlets of our lakes where it is feasible. Even with this precaution I believe we lose many salmon. If it were not for the obstructions, I presume the most of them would return to their native haunts.

I can see no very noteworthy difference in their appearance when in the same condition. Of course the fresh-run fish from the sea is brighter and more silvery, but after he has been in fresh water a few weeks it is difficult to distinguish the difference between the two. When on their spawning beds in October, the large Sebago salmon and the Penobscot fish resemble each other so closely that I am unable to distinguish one from the other. The Sebago fish also runs pretty well up to the size of the other. The average of the Sebago salmon that came into our weir one year on Crooked river was nearly nine pounds. Of the four original habitats of these salmon, Sebago contained the largest fish, they attaining sometimes twenty pounds' weight and over. Those of Green lake came next, being somewhat smaller. In Sebec and Grand lakes the fish were considerably below the others in size, very few being taken above six pounds in weight. The size of these fish apparently depends on the feed and water. The same disparity in size seems to extend to the new lakes where we have introduced them, some producing large, others small fish. The larger are always in lakes (not necessarily of large area) containing deep water, with plenty of fresh-water smelts, which are the favorite food of the salmon. We now have in Maine a hundred or more lakes stocked with the landlocked salmon; in many of them they are caught in considerable numbers. In some of them their growth has been phenomenal, they attaining a weight of over twelve pounds in six years, while in some others none are taken of over five pounds' weight.

I am satisfied that fine large fish cannot be raised without plenty of fresh-water smelts for food. We make it a point to stock every lake with smelts where we plant a colony of salmon. Rangeley and Moosehead contained no smelts until within the last two years. Since their appearance the salmon have increased in size and fatness in a very marked degree.

I am inclined to think there is no very material difference, except in size, in the general characteristics of the landlocked salmon, whether it occurs in Maine or Canada, although I have never seen the salmon from the Grand Discharge of the Lake St. John. I am often asked why the Sebago salmon will not take the fly — I think they will just as well as any others, under the same conditions — I have taken them with the fly in trolling in the lake, also in casting in the Presumpscot river in the quick water below the lake.

Sebago is a very deep lake, with few, if any, shoals. Neither salmon nor trout can be caught with fly successfully in deep water. Place them in shoal water or in rapids like the Grand Discharge of the St. John, and I believe they would take the fly the same as do the others. In fact, I think they all have the same characteristics wherever they are found, and with the same surroundings will acquire the same habits and conditions. I also believe that the increase of size of salmon or trout, introduced into

new waters (whether or not the fry come from lakes that contain large or small fish), will depend on the feed and water in which they are planted.

Some years ago the United States Fish Commission took salmon eggs at Grand Lake stream — these were from small fish. Some of these eggs, which were turned over to the Maine Commissioners, were hatched and distributed in lakes in Maine that contained no salmon. Some of these fish became large salmon, but the others were small, like their parents. This leads me to believe the size of salmon depends on the feed and water, and not on any particular breed. The same conditions that are favorable to the growth of salmon, do not seem to apply to the trout. While the salmon run large in Sebago, the trout run small, when compared with those of other lakes, hardly ever exceeding four pounds.

That the landlocked salmon is the king of fresh-water fishes, all who have angled for him will admit, but that he is the most erratic and uncertain in his disposition or inclination to take the lure I, at least, have found to be true. When "on the feed," which event is of short duration, he is voracious. Then for days nothing will tempt him to break his fast. He will stand more fishing and thrive than any other game fish we have; will afford more sport to the angler when hooked, and he is a prize that his captor may be proud of. When introduced into good trout lakes where he will thrive he is a great acquisition.

In this connection a few words in relation to the work of the Maine Fish and Game Commission will not seem out of place.

That the laws of Maine, which tend to protect the fish and large game of the State, are of immense value to the State and to the sportsman, is a fact now almost universally conceded. That the influence and work of the commission which labors to enforce these laws has been productive of much benefit to the State is also admitted, practically without exception, by those who are in a position to know what that work has been. And the fact that only the efforts of a commission, supported by the will of the people, can preserve for the State this bountiful source of profit and of pleasure, is getting to be better understood as the days go by.

In order to best understand what the commission has done for the preservation and increase of the big game of Maine, it is necessary first to understand what the past condition of the game was.

Twenty-five years ago the game in the woods of Maine was of the same nature but of widely different character from what it is at the present time. Moose were quite plenty, and these monarchs of the forest were not confined to one section of the State, but could be found in all the denser portions of the woods. Prior to that time I have often seen them on the shores of Rangeley lakes, or swimming in those placid waters. Tracks of these big creatures were plenty on the sandy shores of many an inland body of water, and the hunter had no difficulty in finding a moose, did he so desire.

At that period, on the contrary, deer were very scarce, and almost unknown in many parts of the State. I can say that as late as the year 1880, or thereabouts, deer tracks had never been seen by me in Maine. In Oxford and Franklin counties, especially, they were not known. Caribou, as well, were an unknown quantity, practically speaking, there being but very few of them in the State.

To-day an entirely different condition of things exists. The deer, then so scarce, are now so plentiful that I can safely say there are more deer than sheep in Maine at the present time. There is no county in the State that is without them now, and the increase has been marked in the

past five years. Caribou, too, are largely on the increase, but they are migratory animals, uneasy and unreliable. They roam about from section to section without ceasing, and are not to be depended upon for hunting purposes.

But the moose, the most valuable, the most desirable, the most interesting of the big game of our State, are becoming so rapidly depleted in numbers, in consequence of the ever-increasing demand for their heads, that their extermination is probable in the near future, unless the strictest guard is put upon them. Indeed, one may say that only the protection already given them has saved them from utter extinction before this time. What few there are, are now confined to the eastern part of the State, and Oxford and Franklin counties know them no more.

Here, then, is the condition of the game of the State to-day. And it is due, in my opinion, entirely to the laws made by the State for their protection, and to the enforcement of these laws. The constant increase in the numbers of sportsmen who annually visit our hunting-grounds makes it yet more necessary that these laws shall be stringent, and strictly and justly administered. It is not necessary to enter into detail concerning what the commission has done and has endeavored to do. Its labors, which sometimes have been blocked by lack of interest and appreciation, and sometimes have been hindered by lack of means, are becoming better understood, I am glad to say, by the people of the State, and its needs and capacities are being made a study by practical minds.

The public are beginning to realize that a sport which demands the service of over a thousand able-bodied men to carry on, a sport which is the means of a revenue of so large a sum of money as is left in our State each year by visitors, is something more than a sport, and the sentiment is constantly growing in Maine that this resource should be cultivated and encouraged.

Probably no one thing has brought this more forcibly to the attention of the people than has the much-talked of "guides' registration law," the workings of which have already disclosed the fact that the sporting interests of Maine are far larger than have ever been estimated. It is my belief that this one thing is going to be so beneficial to the game of the State that the sportsman of the future will find here greater attractions than he does at the present time.

Hon. JOHN W. TITCOMB, ST. JOHNSBURY, VT.

President of the Vermont State Board of Fish and Game Commissioners. President of the Vermont Fish and Game League, and Superintendent of the National Hatchery at St. Johnsbury.

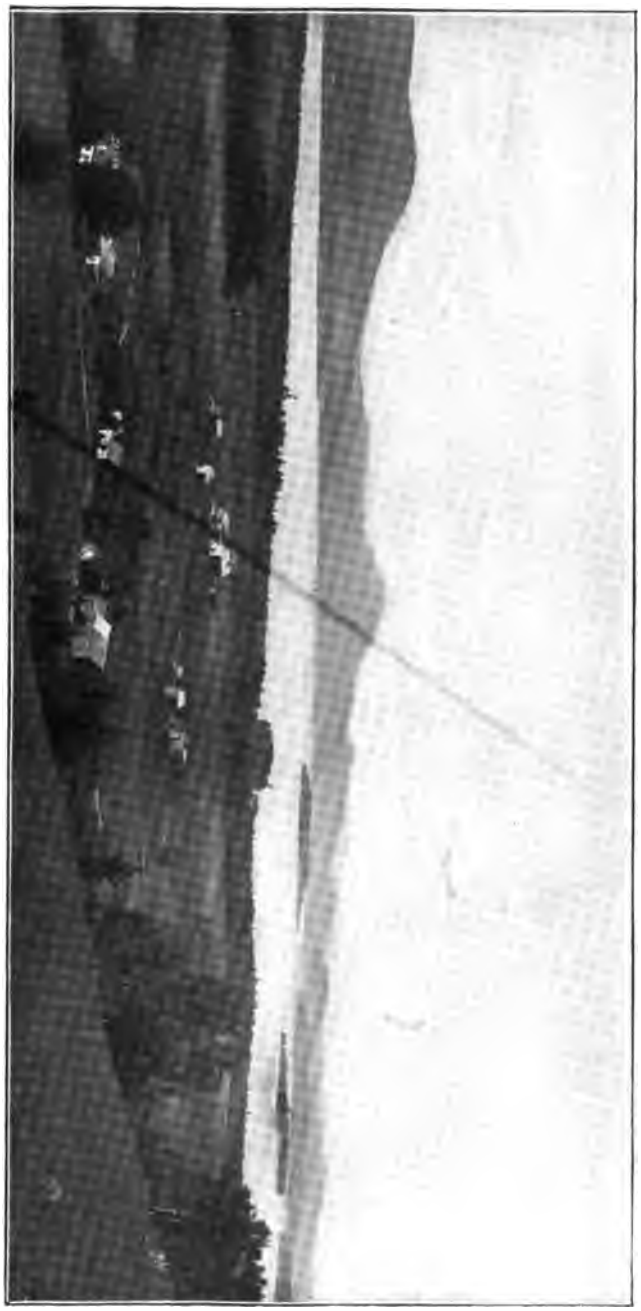
CHAPTER XXI.

Fish and Game in Vermont.

By Hon. JOHN W. TITCOMB.

Much has been written on the attractions of Vermont. While these writings do not exaggerate the beauties of her natural scenery, there is a tendency to overestimate her attractions to the sportsman. Vermont certainly has such attractions, but it is useless to claim that they compare with those of the immense regions where the axe of the lumberman has not penetrated; regions that are still in such primeval condition that Nature retains her equilibrium against the demands made upon her forest and streams, but which are within the reach of anglers and hunters. In this article, therefore, I must necessarily speak of the attractions to be found in a small territory, all of which has been more or less changed by civilization, and whose natural resources have been taxed to the utmost.

The casual observer of the topography of Vermont is impressed chiefly by the tremendous upheavals in nature, and the traces of the immense streams of water which in past ages flowed between her hills. The observations will be confirmed upon examination of the various strata of earth or gravel, revealed by excavations in any valley showing the changes in the river beds which, in many instances, have occurred within a century. The county atlases of Vermont, published only thirty years ago, show many small streams which at the time were natural trout streams, yielding good fishing, but which to-day are only "dry brooks." Perhaps at their sources one or two farms are supplied with water from springs of sufficient volume to be regarded as valuable only to their occupants. Formerly these small streams yielded a steady flow of clear, cold spring water, which was of quite even volume throughout the year, and of comparatively even temperature. The decrease of water and its attendant evils, extreme changes in temperature, make these streams unsuited to the trout which formerly inhabited them in great abundance. The larger streams suffer proportionately as their tributaries are cut off, and the destruction of the spawning beds by the emptying of mill refuse and sewerage into them, has unfitted them for the trout family. The changes in the character of the streams were inevi-



LAKE MEMPHREMAGOG.

table and necessary to the progress of civilization, although the conditions might have been ameliorated by the construction of fishways and the preservation of our mountain streams from the deleterious effects of sawdust and refuse.

Vermont has not alone suffered; it is the same story in New Hampshire, and throughout New England. History is repeating itself in all the newer States, although in some instances their legislatures are profiting by the experiences of their older sisters, and have enacted protective laws before their fish and game have been wholly destroyed.

The observance of the game-laws depends largely upon public sentiment. Sentiment in favor of laws of this character seldom obtains popular support until the protected objects, be they fish or game, are quite scarce. The goose that lays the golden egg must be destroyed before the owners realize their loss. It is a noticeable fact that the portions of Vermont where the protective laws meet the least favor, are the portions in which the fish and game are most abundant. The situation to-day is better than it was ten years ago.

While there are many streams which can never be restored to their former conditions or be made in any way productive, the State is full of good trout streams. These streams are being stocked annually with the product of the State and National hatcheries. While the character of some streams is constantly deteriorating, a larger proportion of them are improving for two reasons: — First, the hillside farms, which should never have been farms, are again growing up to forests. In some instances these farms have been purchased for summer homes, with a fish, game and forest preserve as the result. The second reason is the fact that there are fewer small saw-mills. The larger mills use steam-power and burn their sawdust and refuse for fuel.

Our mountains and hillsides are dotted with lakes and ponds, nearly all of which were originally the habitat of the trout. Their natural conditions have not suffered as much as the streams and brooks. Many of them in the past were stocked, unwittingly, but with good intentions, with fish less valuable and less desirable than the trout. Some farmers introduced horn-pouts into trout ponds. While this did not mean extermination of trout, it did not improve the fishing. Others introduced a worse evil, in the form of pickerel, which meant the utter extermination of trout in a few years. In many instances the pickerel thrived as long as the trout lasted, but afterwards the ponds did not furnish sufficient natural food for their sustenance. This form of indiscriminate stocking was stopped by legislation; then the bass fad, which extended throughout New England, and was taken up quite generally by fish commissioners, spoiled many more trout ponds. The first reason for introducing bass was to destroy

ROCKY POINT, LAKE CHAMPLAIN.

LAKE HORTONIA, SUDBURY, VT.

the pickerel previously introduced. In some instances this was accomplished; but after the pickerel were eaten, the bass began to deteriorate, because they could not find sufficient food to sustain them. In other instances, bass were placed in trout ponds where the pickerel had not obtained a footing. As a result, we have some good bass ponds but many ponds which have been spoiled both for trout and bass. As far as possible, the lakes and ponds unsuited to pickerel or bass, are being restored to their natural conditions and stocked with brook trout, lake trout, or landlocked salmon. Already sufficient success has attended the work of the commissioners to warrant still further operations in this direction. The landlocked salmon is not indigenous to Vermont, but the success of New Hampshire and Maine in propagating this variety, and stocking some of their waters, settles the question of its desirability for many of our lakes. One qualification of this valuable game fish is the fact that it will thrive in waters of a warmer temperature than will our native lake trout. It can be reared in lakes which, by nature, have become changed through denudation of the surrounding forests. The steel-head trout of California, though not thoroughly tested in Vermont, has the same qualifications, as to temperature of water in which it will live, as the landlocked salmon, and this fish is also being placed where the results can be watched carefully. Both of these varieties of the *salmonidæ* grow to be as large as the lake trout, and are far more gamy.

It may not be out of place here to state that the rainbow trout of California is being used to stock some of the brooks of Vermont which have a warmer temperature in summer than is suitable for the native brook trout. The rainbow trout bears the same relation to the steel-head trout as our native brook trout bears to the lake trout. All the larger lakes in Vermont which are suitable for the lake trout, are annually receiving liberal consignments of them. The trout family receives especial attention in this article, because the trout is, *par excellence*, the fish of the interior waters of Vermont. The native trout, whether brook or lake, cannot be improved upon in waters to which they are adapted. The foreign varieties are only advocated for waters the nature of which has changed, or for the purpose of supplanting some less desirable species of fish.

It would be an invidious distinction to pick out any particular lake in Vermont as being more desirable than others, but it goes without saying that Lake Champlain is our pride as a fishing resort. Nearly all varieties of fish are sometimes "not at home," but it is seldom that the fisherman on Lake Champlain returns with empty creel. If the black bass, so plentiful in its waters, are not biting, the fisherman may try the wall-eyed pike, pickerel, perch, or some of the still more plentiful varieties of pan-fish. Both large and small varieties of pickerel are found in Lake

COLLECTING WILD TROUT SPAWN, AT CASPIAN LAKE, GREENSBORO, VT.

Champlain. The larger variety, more properly called the North American pike, predominates.

The lakes of the interior most popular are those containing the various *salmonidæ*. These lakes have clear, cold water supplied by springs or cold mountain streams. Those attracting attention to-day are Dunmore in Addison county, Iroquois in Chittenden county (town of Hinesburgh), Morey in Orange county, Caspian, Willoughby and Seymour in Orleans county, and Maidstone lake in Essex county.

The writer might go on and mention other lakes full of bass, pickerel, perch and other good pan-fish which more surely afford food for the table than do some of the trout lakes; such, for instance, as Hortonia, Bomoseen, and St. Catherine in Rutland county. In mentioning the trout lakes, the writer will say that Dunmore affords bass as well as lake trout fishing. Iroquois affords bass and wall-eyed pike fishing. It is a natural trout lake, but is inhabited by pickerel. It has been recently stocked with lake trout, and the neighboring citizens have interested themselves in preparations to screen its outlet, as authorized by the last legislature, and to destroy, so far as possible, the pickerel while the latter are spawning in the marshes. As the spawning grounds of the pickerel in this lake are not extensive, there is every reason to believe that they can be easily kept down to allow the lake trout to predominate.

Lake Morey is noted for good bass fishing. There are some pickerel and many yellow perch in it. The lake is of historic interest because Samuel Morey, now claimed by Vermonters to be the first inventor of the steamboat, lived on its shores, and tradition says that his boat was sunk in the lake by his enemies. It is natural trout water and has been stocked with landlocked salmon by the United States Fish Commission and with lake trout by the State Commissioners. Several landlocked salmon have been caught there the past season weighing three to four pounds each, showing that this valuable fish is destined to be of first importance in the lake when it has once obtained a foothold. The State has recently been to great expense in strengthening the outlet of this lake and has put in a substantial screen to prevent the escape of the salmon into the Connecticut river. The shores of the lake are quite thickly dotted with pretty cottages owned by summer visitors.

Caspian lake, at Greensboro, is noted for its large brook trout, and is one of the field stations of the United States Fish Commission, operated in connection with the hatchery at St. Johnsbury. The trout taken at this lake will average in weight over a pound each. They spawn in the shallow water along its shores, so near that persons walking near the spawning bed can easily see the fish at work during the daytime. It was formerly the custom of many of the local residents to spear the fish on their spawning beds and salt down a tripe barrel full for winter use. This barbarous

custom has been stopped, and the fishing is improving each year. In addition to the brook trout, which range from one to five and one-half pounds in weight, the lake now affords good fishing for lake trout ranging from five to fifteen pounds. Seven or eight lake trout, weighing from fifty to sixty pounds, is considered a good day's catch. The State Fish and Game Commission take especial pride in Caspian lake, because it illustrates so well what results can be obtained by protection and artificial stocking in so short a period as six years. The lake is high in elevation and, like most Vermont lakes, is surrounded by beautiful scenery. It is constantly growing in popularity, and property along its shores is rapidly appreciating in value, owing to the steady demand for building lots. The number of cottages is increasing annually.

The best season in Vermont for fishing is during May and June for nearly all varieties, and especially for either lake trout or brook trout in lakes and ponds. Fly-fishing or angling for brook trout in streams is, perhaps, best in the month of July, although the time varies with the season. Bass take the lure best soon after June 15th, which is the beginning of their open season. In August they are not easily enticed, but they may be taken in September after the first frosts.

Willoughby — the largest lake entirely within the confines of Vermont — is of from five to six thousand acres in area and is a natural home of the lake trout. It is also inhabited by the Menominee white-fish, making an abundance of food for the lake trout, and is well adapted for the land-locked salmon. Seymour and Maidstone lakes are also inhabited by the lake trout, and the adherents of each claim that the trout caught in it are superior to those of other waters. After all has been said, each has its attractions, and they are increasing annually. Each is a paradise for those who are most familiar with it.

Not till 1890 did Vermont invest in a hatchery for the artificial propagation of fish, when an appropriation of $2,400 was made for the purchase of a site and the construction of a hatchery. Since the first appropriation, the legislature has liberally supported the institution, which was located at Roxbury; and to-day it is regarded as one of the best equipped and most productive of its kind in New England. Its work is confined to the propagation of the trout family or *salmonidæ*, the native brook trout and lake trout receiving special attention. It has a capacity of 2,000,000 eggs which are hatched, and the fry are planted at ages varying from three months to one year old from the time they begin to take food. The larger portion of the product is distributed as fed fry (about three months old) in the months of May and June. After the general distribution in June, shipments are made each month to relieve the overcrowded condition resulting from the rapid growth of the fry. The first shipments are made as fingerlings in October. The number of ponds at the hatchery is being

increased annually to provide space for rearing a larger portion of the product to the fingering age. The water supply at Roxbury is unexcelled in the qualities essential to the propagation of the *salmonidæ*.

There is a national hatchery at St. Johnsbury devoted to the propagation of the *salmonidæ*. While especially favored in having a national hatchery, its product is not confined to the State or to New England, but is shipped to State commissions in the form of eyed ova, or transported direct to streams in various States by means of well-equipped cars constructed for the especial use of the United States Fish Commission. While the State hatchery obtains its supply of brook trout eggs from adult fish retained in ponds at the hatchery, and its lake trout eggs from the United States Fish Commission, the national hatchery at St. Johnsbury obtains its supply of eggs from the wild trout, and has collecting stations at Groton, Greensboro, and other places.

In collecting the eggs of the native trout, the fish are first caught and retained in pens constructed for the purpose until ripe, when the eggs and milt are extruded and the fish returned to their native waters, unharmed and apparently happier for the operation performed upon them. The angler who fishes for days with indifferent success would be surprised to see the hundreds of trout taken from their spawning beds during the proper season. At Caspian lake, Greensboro, it was not uncommon to capture over a hundred trout in one night's fishing, none of which weighed less than half a pound and many weighing from two to five pounds. At Groton the trout differ in their habits from those at Greensboro, in that they ascend the brook to spawn instead of spawning along the shores of the pond. They are caught in a trap as they ascend the stream, fifteen hundred fish having been known to enter the trap in a period of twenty-four hours and over seven thousand trout during one season. These fish range from six to twelve inches long and the average weight is about one fourth of a pound. The pond from which they were taken is a mill-pond, fed by a brook about two and one-half miles in length. The abundance of the trout is attributed to the fact that this brook retains its primitive quality of water, is supplied from springs and furnishes good spawning grounds. The waters have been protected against inordinate fishing. There is a possibility for many such natural preserves if the owners of farms and summer homes would properly utilize the streams and springs which are a part of their property.

GAME : — Sixteen years ago, deer were practically extinct in southern and central Vermont and were not at all abundant in the wildest portions of the northern part of the State. It was about that time that a number of sportsmen in Rutland county, assisted by a few from adjoining counties, made up a fund by subscription to purchase some deer which had been advertised for sale at Dannemora, New York. Several hundred dollars

were raised for this purpose. Ten animals were purchased at Dannemora and two or three from other sources. Three more were presented to the Rutland sportsmen by the late Governor Fairbanks of St. Johnsbury, Vt. In all, seventeen deer were turned loose in Rutland county. Legislation was obtained, making a closed season on deer throughout the State for a term of years. As soon as the term expired, further legislation was obtained to continue the closed season, and this operation was repeated as often as necessary until the legislative session of 1896. During the closed season a reward of $50 was a standing offer for evidence furnished leading to the conviction of any person violating the law. On one occasion a

RESCUE LAKE.

conspiracy was entered into between two poachers. One of them killed a deer and the other one complained of him, receiving the reward of $50, which was just equal to the fine for killing. Meantime the carcass had been disposed of. After this episode, the penalty for killing was made $100 and the law was pretty generally observed. Under the fostering care of the Rutland county sportsmen, supplemented by State legislation, the deer increased rapidly. Occasionally acquisition to this introduced herd would be made by deer from New York State seeking refuge from hunters or dogs.

In northern Vermont the deer had not been entirely exterminated when the long-closed season went into operation. Essex county is com-

posed mostly of wild timber land. Bordering upon Canada and New Hampshire, it was the natural refuge of deer from those regions where open seasons prevailed each autumn. Thus it will be seen that the present stock of deer in Vermont originated from two sources, and from them they have spread quite generally throughout the wild and wooded portions of the State. As the deer increased, there came a clamor at each session of the legislature to have the protective law repealed or modified, to give, at least, a short open season annually. The appeal came from two classes. One class represented a type of hunters in the rural districts, who wanted an opportunity to destroy, even as the original stock had been destroyed. They used the same argument as did a more sincere class, who occupied small farms in the rural districts, and occasionally suffered from the depredations of the deer in their gardens. As the clamor for an open season grew stronger at each recurring session, accounts of the increasing number of deer became exaggerated, as well as the damages done by them. Reports of deer being seen were very frequent, but it was not taken into consideration that a partially domesticated deer would be seen many times by different persons in different localities in one day, thus assisting to give an impression of their great abundance. A rigid enforcement of the law for their protection became proportionately more difficult as the animals increased. Convictions for violation of the law in Essex county were practically impossible in the rural districts, owing to public sentiment against the law. In communities where violations occurred, all persons cognizant of them usually shared the venison, and could not disclose without being themselves liable to prosecution. The complaints of damages to crops became more frequent. At the session of the legislature in 1896, the arguments before the Committee on Game and Fisheries were so strongly supported by farmers and sportsmen that a law was passed allowing the month of October for an open season, during which time deer with horns might be hunted without dogs. The first time this open season took effect was October 1, 1897. For many years past, reports in the city papers, notably the Sunday editions, have exaggerated the conditions in Vermont as to the abundance of deer. The advent of an open season was the signal for more frequent articles, with proportionately increased exaggeration, if such were possible. The unsophisticated were led to believe that the ravages of deer resembled the grasshopper plague of the west, and that it would be an easy matter to shoot a deer on the first day of the open season. In fact, these exaggerated reports of wild animals in Vermont were not confined to deer. Our newspaper reputation, as a paradise for sportsmen, extended across the seas, and such articles as the following, from the *Revue Scientifique*, of Paris, are a sample of the humorous side of the subject. The article states:

"The farmers of Vermont (United States) have for some time been

much annoyed by the ravages caused by wild animals in their fields. The deer invade the fields and browse on the grains, and they have become so tame that it is scarcely practicable to drive them away; they mingle with the herds of cattle, and are encountered on the main roads, close to the towns. The porcupines are equally the objects of the farmers' maledictions, because of their numbers and the noise which they make by fighting around the farmhouses at night. Partridges are very abundant also, and cause serious devastation among fruits and certain vegetables. Bears are numerous and encroaching, and are frequently met with in orchards, devouring fruits near dwellings on the roads, and in sight of villages and towns. These animals also have become so familiar that they are not frightened away by the sight of man.

"This exceptional and alarming abundance of wild animals is due to the laws for the protection of game; laws which protect certain species at all times for a period of years, which will not expire until 1900, and which severely punish every violation. Other species may be hunted during an open season, but outside of its limits they are vigorously protected. Thus it is apparent that there are countries in which the protection of game is practicable and effective, a statement which is open to not a little doubt in France, if we may judge from the complaints of the hunters."

For two weeks before the opening season, hunters began to pour in from outside the State, camping out, or occupying small hotels in the vicinity where the deer were said to be most abundant.

In order to have the restrictions regulating hunting observed, notably the requirement that all deer must have horns, a reward was offered by the Vermont Fish and Game League and the Fish and Game Commissioners to any person who should give evidence leading to a conviction of any one violating the law. This standing offer, published extensively throughout the State, undoubtedly had a good effect. The law was pretty well observed. If any one killed a doe, it was not carried out of the woods. Wardens employed to see the law enforced, report finding a few does left in the woods or open pastures, where they were shot down. Perhaps six or eight does without horns were killed during the month. A record kept by postmasters in every small town in the State, and submitted to the Fish and Game Commissioners at the end of the season, shows that the total number of deer killed and reported was one hundred and three. The writer believes that enough more were killed to make the number about one hundred and twenty-five.

To show which sections of the State afford the best hunting, the number of deer killed in October, 1897, is given by counties, as follows:

Addison county . .	1	Chittenden county .	4
Bennington " . .	6	Essex " . .	6
Caledonia " . .	5	Franklin " . .	2

Lamoille	county	.	2	Washington	county	.	3
Orange	"	.	1	Windham	"	.	7
Orleans	"	.	3	Windsor	"	.	36
Rutland	"	.	27				
					Total		103

The press of the State very generally condemns the idea of an open season, and is supported by the real sportsmen. Our forests are not extensive enough to warrant having much of an open season. The writer believes Vermont is more attractive with a few live deer which can occasionally be seen when driving than with an open season and consequent slaughter of half-tamed animals.

It is probable that sportsmen saw five does for every buck that was killed. This is accounted for by the fact that the same does might be seen several times, also that does are more liable to roam about with cows and near habitations. This is especially the case during the period when they are nursing their young, for at such times they seek protection from the bucks, which have a habit of killing the fawns. It is probable that the legislature of 1898 will repeal the present law permitting an open season.

The wary fox still maintains his title of cunning by holding his own against the hunters and trappers. The fox-hunter is a distinct type of sportsman. The patience required in the pursuit of foxes familiarizes him with the woods and with the animals' habits and runways. The successful hunter must be even more cunning than the fox, and it is perhaps for this reason that comparatively few sportsmen hunt them. About three thousand foxes are annually killed in the State, most of them being captured in the months of October and November.

Coons also hold their own against the few who hunt them.

The number of bears taken annually varies from fifty to sixty. Most of them are taken in traps. Until 1896 the State paid a bounty on foxes and bears, and the number of each killed in a season is based upon statistics obtained from the auditor's office.

Rabbit-hunting is a popular sport in sections of the State more thickly populated. In Essex county and vicinity, rabbits are so plentiful that the sport is regarded as somewhat tame and is ridiculed by the local hunters. The best season for hunting them is in October and November, before the snow becomes deep. Later on they are hunted when the crust will bear the weight of a dog. Light snows are frequent, facilitating the tracking of them on the crust. A drive of five or ten miles from almost any village in Vermont will take the hunter to swamps where he can bag from five to ten rabbits in a day if he have a trained dog. It is a most simple form of hunting, as the rabbit will invariably circle around to the point where the dog started it, and the hunter only has to be on the alert and a quick marksman.

Gray squirrels are migratory, coming and going almost in a night. Their migrations are directed by the food supply, and the year following good nut crops usually affords good hunting. They have the ill-will of the farmers because they are great corn thieves, and in September good shooting can be obtained by sitting quietly between a piece of woods and an adjacent cornfield, picking off the squirrels as they pass from field to cover. They can hardly be treated as game animals and many sportsmen will not shoot them. By using a rifle, however, the marksmanship of the hunter is thoroughly tested.

The woodchuck is hardly worthy of mention in an article of this kind, except that he furnishes rifle practice at a season when there is no other attraction to call out the sportsman. Their destruction is a benefit to the farmer, but in spite of the fact that they are extensively hunted before the grass is high enough to conceal them, they hold their own. Their cunning, combined with stupidity, and their habits would furnish quite an interesting chapter.

In mentioning the game birds of Vermont, the ruffed grouse, commonly called partridge, easily takes precedence and is found in all the wooded portions of the State. It appears to prefer patches of woods in the vicinity of farms, perhaps for its better protection against vermin. While protected by legislation, its abundance varies from year to year, being affected greatly by the nature of the weather during the breeding season. As an illustration, during the springs of 1895 and 1896, there was little rainfall, and warm weather prevailed during the breeding seasons. As a result, the shooting in the following open seasons was unusually good. Partridges were reported more plentiful throughout the State than for many years previous. During the spring of 1897 the rainfall was tremendous, and the weather very cold. As a result, very few birds have been found during the present open season, and most of those seen are old ones.

Woodcock are found in their natural haunts throughout the State, but there are so few hunters who are familiar with their habits that in many places they come and go without being molested. The shooting begins September 1st, and the brood birds at this season are found near their nesting grounds and in the blackberry pastures. As the season advances, they work in the alders or fly south when the flight birds succeed them. The best season for woodcock shooting is the month of October, although in some localities sportsmen cannot find them after the month of September. The flight birds remain in Vermont during the early part of November, unless driven south by extreme cold weather.

There is perhaps no section of the New England or Middle Atlantic States which affords better duck shooting than exists in the Missisquoi marshes of northern Lake Champlain. The black ducks and other varieties breed in these marshes, which are protected and privately con-

trolled. Fortunate is the sportsman who receives an invitation to shoot from a blind in these marshes, over live decoys, which are partially domesticated wild ducks, or has an opportunity to "shoot" the creeks flowing through them. Outside of these privately controlled marshes, a line of blinds is usually set up on posts in the lake, from which quite good shooting for "lake ducks" can be obtained late in the season. The season for shooting opens September 1st, and the marsh shooting is good from that time on.

An average day's bag for one good marksman is twenty black ducks, but there are one or two days each season when the sportsman can easily make a record of one hundred birds if he so desire.

Aside from the northern portion of Lake Champlain, the duck shooting does not yield much sport, although the birds run the gauntlet of gunners in blinds for the entire length of the lake southward.

The introduction of new game has been taken up by individuals, and by the Vermont Fish and Game League. Quail have been introduced several times, but they cannot withstand the rigor of our winters.

The English pheasant has obtained a foothold, and is spreading rapidly throughout Chittenden county and the region to the south of it. Mongolian pheasants are being propagated in aviaries by the League, but the work is of too recent origin for one to prophesy results.

A few pinnated grouse, capercailzie, and black game, have also been introduced, but it is too early to foretell the results from these introductions.

All these newly introduced game-birds are protected by legislation for a period of years.

In the work of protection, propagation, and introduction of fish and game, the Vermont Fish and Game League has had a conspicuous part from its inception, seven years ago. Organized with a charter membership of one hundred and ten, it has constantly grown in strength and influence, until it now has over five hundred paying members, drawn from the leading business and professional men throughout the State. Of this large membership, probably less than half ever hunt or fish, but their identity with the organization is prompted by a belief in developing Vermont's attractions, and that there is no surer way to do it than by encouraging the League in its work.

With a constantly improving public sentiment, backed by so strong an organization, the continued development of these interests is assured, and sportsmen should find attractions as the years roll by, so that the sons—yea, and the daughters of the present generation of sportsmen—will find in Vermont the invigorating pleasures and attractions which contributed towards making their forefathers strong physically, morally and mentally.

CHAPTER XXII.

TROUT STALKING.

By J. PARKER WHITNEY.

THIS sport, when the conditions are favorable, may be accounted the most fascinating, exciting and artistic method of taking the speckled beauties.

The season in the northern waters of Maine is the last of August and September, when the summer heat is over, and when the cool days and nights have lowered the temperature of the surface water down to or below sixty-three degrees Fahrenheit. The field, that of a placid lake or pond where trout abound when the surface is entirely smooth, or agitated only by faint ripples. The afternoon is more favorable than the morning, although some days are favorable throughout.

With the above conditions, and a light boat and companion guide at the stern who can skilfully propel the boat over the water with scarcely a ripple from the paddle, and with a light casting-rod of good length, a light leader and a number eight or ten fly, and a landing net, one is equipped for the sport.

It may be sunny or not, overcast or clear; it matters not if the wind is absent or light, but on a bright or sunny day the necessity of skilful work is more apparent than when the sky is overcast or dull. When the sun is shining or partially obscured, the boat should be worked between the sun and breaks, to the advantage of the fisherman and the disadvantage of the trout. The effect of shadow is light compared with the advantages so gained.

Many of the lakes and ponds in Maine, where trout abound, are favorable localities for this sport, although some are not, and there are usually quite a number of days in September when the temperature of the surface water and other conditions are entirely favorable.

I will confess to having allowed some decades of fishing experiences to pass before I became familiar with this sport, which of late years I have looked forward to with much interest and expectation.

The trout, which were plentiful near the surface from the going out of the ice until the middle of June when the surface water warmed up to a

temperature of sixty-five degrees, have sunk away to cooler depths, where they remain until the surface water again becomes favorable from the cooler weather of autumn.

But in surface-stalking one does not get so large fish as in spring trolling, for it is the medium-sized fish, weighing from one-quarter pound to two and one-half pounds that gives itself the frolicsome play of surface feeding, in the waters which I frequent, those trout averaging a trifle over three fourths of a pound.

There are certain autumnal days when the conditions are favorable, when it would seem as if all the medium-sized trout in the waters were surface feeding.

Not in an eager and conspicuous manner, with splashing breaks and flashing swirls, but in a quiet sucking-in from the surface of the varied ephemeron which plentifully abound, in a manner so quiet as to be observable only to the experienced eye.

No minnow, however minute, can agitate the surface of the water more delicately than a one-and-a-half-pound trout, if he wills it, and he does when so feeding, although the occasional more conspicuous break and swirl occurs in the presence of an unusually attractive lure, apparent to the most ordinary sight.

Equipped, the boat is propelled deftly by its stern paddle over the feeding-water. The fisherman is seated in the middle of the boat, casting softly to the right and left with the progress of the boat, for the advantage of a possible surface trout that may be about. A delicate apparent minnow-break is observed off to the right, perhaps fifty, perhaps one hundred or more feet distant, of which, as soon as it is over, nothing remains to mark the exact spot except a possible air bubble or two. The boat is propelled toward the side of it, to within thirty-five or forty feet, when the cast is given near the spot. Perhaps the fluttering fly is taken at the instant of its fall, for the trout may be directly beneath, but generally not, for the fly is almost always taken slightly below the surface, which position it will assume on a long cast and a slow drag.

The trout is likely to have moved ten or fifteen feet, perhaps more, but he is almost sure to be picked up in the neighborhood if he has not been alarmed by unskilful movements of the boat or its occupants.

Often an active trout will be "on the go" in feeding, and by the time the boat has reached a position for casting over the first break, a second will be observed still beyond a possible cast, presumably from the trout which made the first break, and before the second break can be reached a third appears still further on, and sometimes so on, and I have often followed up and secured my trout, which has carried me by a dozen breaks and fifty or sixty rods beyond the initial appearance.

Ordinarily, if a break occurs within the distance of a few lengths of

a boat, which can be speedily reached, the chances are more than half in favor of securing the fish. If within casting distance, one is almost sure of securing the trout.

Often breaks will occur so near the boat that the only thing to be done is for the stern man and caster to remain motionless until the boat, if under a headway, may pass on, when half the chances are in favor of the trout being picked up in the rear. If the boat is not moving, the chances of taking the trout are diminished, as the motions essential to shortening line and the proximity of the trout are likely to alarm the fish, and when alarmed he invariably strikes down. Occasionally the breaks are so numerous that one may take half a dozen fish without moving his boat. I remember an instance a few years ago, when accompanied by an English fishing friend whose experience had been mostly in the dry-fly drop of the Thames, where he had notable success, that we caught, well out on the pond, fourteen trout, averaging nearly a pound in weight, without touching the paddle to the water, and my friend became exceedingly enthusiastic, as he well might be.

On my last stalking, in September, 1897, accompanied by my wife who was in a separate boat, she netted twenty-eight trout, which scaled over twenty pounds.

This fishing must not be confounded with pool fishing, or that which we often find in isolated ponds which are unfrequented, and where the little trout, entirely uneducated to the penalty of the hook, and therefore fearless, will crowd about a raft or boat, until a hundred or more may be picked up.

The fishing I refer to is the stalking of the fish in well frequented waters, where they are sought and followed up under the peculiar conditions which regularly occur where the trout are scattered over the surface, and not in schools, and must be sought for by their feeding-breaks, a fishing distinctive in character, and which I am sure is not extensively practised by all fishermen.

It is not probable that localities favorable for this stalking exist in all trout waters, but there are hundreds, I dare say, of lakes and ponds in Maine where it can be most successfully pursued.

CHAPTER XXIII.

Nova Scotia and its Game and Fish.

Many of our people on this side of the Bay of Fundy, who have had no opportunity to form a better and more correct opinion, believe that Nova Scotia is simply a land of fogs and "blue noses," of barrens and forests, of short and unsatisfactory summers, and long, cold, almost unbearable winters; of unproductive soil, and of a shiftless people, stolid, and without energy or ambition. This opinion does great injustice to a most interesting, and, in many ways, a delightful province.

Its winters are no more severe than those of New England; its summers are in every way most enjoyable, its climate is one of the best and most health-giving to be found, and its scenery is picturesque, no matter where it is viewed.

But it is not in these points alone that Nova Scotia excels, for there is hardly on the face of the earth a country that possesses a greater and more varied wealth of the things that civilization requires. Her timber lands are of exceeding value, she producing for export almost everything that is found in her latitude, and her mineral resources are quite wonderful. In many localities it is a rare exception that, in breaking a bowlder or rock, some interesting mineral is not to be found, while her mines of coal, iron, plaster, gold, antimony, manganese and slate have attracted the attention of capitalists, both in Europe and America.

To the sportsman she seems a veritable paradise. Her forests, which in some localities are still primeval, are inhabited by moose, caribou, bear and other large game; the younger growths near the settlements teem with ruffed grouse, woodcock and hares, and her lakes and streams abound in trout, and, in some sections, salmon, and the sea fowl, and shore birds that are met with are, in some seasons, almost innumerable.

As sea fishing has been for many years a leading industry, the country about the shores is more thickly settled than that in the interior, and the exportation of fish and lobsters has been a principal source of income to those who dwell by the ocean.

But there are many settlements in the interior, as well as towns of considerable size and prosperity, and scattered along the post roads which traverse the Province are farms, sometimes of considerable magnitude and

productiveness; extensive orchards are also to be seen in many localities, and the quality and quantity of fruit grown are not excelled.

There are several ways of reaching Nova Scotia from Boston, and each has its own degree of popularity.

Landing at Yarmouth in the morning, the tourist, after his baggage has been examined by the customs officer, takes the train on the Dominion Atlantic railway, if going north, or one of the mail stages, or a private carriage, if his destination is a point near at hand.

For the sportsman there are several desirable localities easily reached by carriage. Among them is the little village of Kemptville, to which place a mail stage makes daily trips from Yarmouth. The trout fishing here is excellent, and large catches have been made, the fish being gamy and averaging of good size.

Near by, on the Tusket river, salmon are also killed, and, the waters being free, as, in fact, they are generally throughout the Province, the angler may enjoy, in an outing of a week or two, all the recreation that he can, in reason, desire. There are upward of eighty lakes and ponds in the township, all of which empty into the Tusket river, and from this fact one may form some idea of the possibilities of the neighborhood.

To the hunter, the woods in this locality in the autumn also offer many attractions, partridges and woodcock being abundant, and moose also may be obtained if the sportsman wishes to go into the wilderness for them from this point.

By another stage from Yarmouth the traveler may reach the town of Tusket, near the mouth of the river, where fairly good fishing may be found, and if he wishes to continue his journey, he will find at Barrington comfortable quarters, and in the vicinity of the town some fishing, and partridge and duck shooting. The stage road follows along the shore to Shelburne, where there is, in the autumn, duck and shore-bird shooting, and satisfactory fishing in May and June. Beyond Shelburne, on the same road, is the town of Liverpool, near which, salmon are killed with the fly, and good trout fishing is easily attainable a few miles from the town.

The railroad along the south shore, which is now being constructed, will make this section more easily approached and will open up to the sportsman many choice spots which are not very accessible. There are scores of lakes and ponds in this portion of the Province, and they are worth the attention of the angler. In addition to the stage line, there is a steamer which leaves Yarmouth for the towns that have been named, every Friday morning, on the arrival of the Boston boat.

If the objective point of the tourist is not in any of these localities, he takes the train at Yarmouth for Annapolis, stopping off wherever he may please. In the neighborhood of Digby and Bear river, fair trout fishing is to be obtained; partridge and woodcock shooting is also good, and in the

wilderness which lies behind these towns, moose hunters meet with considerable success. Digby has, in late years, become a favorite watering-place, and its charms are already well known in New England.

At Annapolis, in the proper season, there is excellent snipe and shore-bird shooting, and in the extensive stretches of meadows, many ducks of different species are obtained. There is a small stream, tributary to the Annapolis river at this place, in which the Indians obtain a considerable number of salmon, and if a fly were cast upon the pools which lie in its course, the lure would, undoubtedly, be accepted by an occasional fine fish. There is also good trout fishing within easy driving distance from the town.

At Annapolis, the stage which crosses the country to Liverpool is taken. The scenery through which the road passes is in many places very picturesque, and when the highest elevation of nearly twelve hundred feet is attained, a magnificent view is to be had of the surrounding country.

At Milford, where a stop is made for supper, good trout fishing may be found in June and July, and partridge shooting in the autumn.

At Maitland, a small village about thirty miles from Annapolis, there is capital trout fishing, good partridge and woodcock shooting, and in the barrens and wilderness a few miles from the town, moose are fairly abundant. At this point one may take a canoe, and, passing down the river and traversing the beautiful Fairy lakes and the great Lake Rosignol, may, if he desire, make the entire journey by water to the town of Liverpool. It is a trip well worth taking, and the angler will find good fishing all along the route.

The next village on the stage road, after passing through Maitland, is Kempt, near which good partridge hunting may be obtained. The writer has often seen in the by-roads about this village and around Maitland, covies of eight or ten of these birds in stubble fields or pastures away from the woods, where they were running around like so many domestic fowls, and they were sometimes so tame that they would not flush, even if approached to close quarters by the hunter. So unsuspicious are they, that it is not an uncommon occurrence to see them perched on fence rails by the roadside, from which they will not fly, even if a whip from a passing carriage is snapped at them.

The best trout fishing in this section is found in the rapids four or five miles above Maitland, at the "Falls pool," near the village, and at the "Eelweir" at the outlet of the "Fairy lakes," but there are many other places near by in which the spotted beauties may be taken in satisfactory numbers.

There are good guides at all the villages that have been named, who know the country thoroughly, and the sportsman may obtain their services at a very moderate cost.

Continuing on the Liverpool road, several neat and prosperous villages

Photo. by E. A. Samuels.

FALLS POOL ON MAITLAND RIVER, ANNAPOLIS CO., N. S.

are passed, the principal of which is Caledonia. At Greenfield, at the outlet of Ponhook lake, is good salmon and trout fishing, and below the village, on the Port Medway river, many fine fish are killed every year.

Everywhere along the line of road that has been described, moose are found, with an occasional caribou in the wilderness a few miles away, and with the employment of expert guides, the sportsman may reasonably count on success.

From Greenfield the tourist may, by an easy stage, proceed to Bridgewater, on the Nova Scotia Central railway, which connects with the Dominion Atlantic railway at Middletown ; or, if he prefers, he can continue with the post road to beautiful Mahone Bay and Chester ; or, he may go to Lunenburg, in the vicinity of which place he will find good trout and salmon fishing in the La Have river. On the road north from Chester there are several fine streams in which trout and salmon are taken. The best of these are Gold, East, Ingram and Indian rivers. They are all very accessible, and grand sport is often found on them.

The Indian river was, until within a few years, a famous salmon stream, but the erection of a large steam saw-mill at its mouth has injured it considerably. There are scores of lakes throughout the localities that have been described ; in fact, the whole Province is dotted over by hundreds of them, and the wonder is often expressed that there can be so many in a country that has no great mountain system. In nearly all these lakes trout are to be found, and the angler has only to make his choice of water where he may cast his flies.

In many of these lakes the salmon pass the summer, but they refuse the fly, no matter how temptingly it may be offered them. The writer has seen great numbers of them in a small lake on the Indian river, but although they were constantly leaping around his boat — even almost into it — they refused every lure that was thrown to them.

From Indian river, at the head of Margaret's bay, to Halifax, the road passes through a very picturesque country, but it is not particularly interesting to the sportsman, there being no hunting worth mentioning, and only a few localities where trout may be obtained. North of Halifax, at Musquodoboit, there is good sea-trout fishing, and in the streams in the neighborhood, spotted trout are found in considerable numbers.

Further east there is good salmon fishing at Sherbrooke, on the St. Mary's river, and everywhere within a radius of ten miles from the town the fishing is among the finest in Nova Scotia. Sherbrooke may be reached by a long stage ride from Halifax, or by a shorter one from Antigonish, on the Intercolonial railway. It is a region rarely visited by American sportsmen, but it offers inducements that are well worth attention.

A favorite route between Boston and Halifax is by the line of steam-

ers which ply between those cities. The journey is not a long one, the boat leaving Boston at noon on Saturday and arriving at Halifax in the early evening on Sunday.

PORT HAWKSBURY.

From Halifax a steamer sails for Port Hawksbury, where the tourist may take another boat or train for points in Cape Breton. There is hardly a more delightful sail in any section of the eastern country than that through the famous Bras D'Or lake, that great arm of the sea which intersects the island through its entire length.

The scenery throughout Cape Breton is very picturesque, sometimes wonderfully so, and the climate is salubrious and healthful in the highest degree.

Photo. by E. A. Samuels.

VIEW ON THE MARGAREE RIVER, CAPE BRETON.

NOVA SCOTIA FISHING.

The sportsman here finds much to interest him, and the angler can successfully cast his flies in many most satisfactory waters.

The best fishing is found in the Margaree river, which is reached by stage or private conveyance from Baddeck, at which point the Bras D'Or steamer makes a landing. The distance is about twenty-eight miles; the road is generally good, and the scenery through which it passes is often very interesting. Middle river, about ten miles from Baddeck, should not be passed by without an attempt being made on the part of the angler to land some of the sea trout which inhabit its waters, or to lure one of the salmon which sometimes come to the fly on this stream.

Leaving Middle river, the road winds among the hills, which are verdure-clad to their summits, and through the woods and among the scattered farms to the village of Northeast Margaree. Here may be found a comfortable stopping-place at one of the farmhouses, and the angler may obtain such sport as he perhaps never before dreamed of. The Margaree is one of the finest rivers in America. It abounds in sea trout of great size and gaminess, and salmon occur in goodly numbers. It is, moreover, so easily fished that one may, almost dryshod, for many miles of its length, cast the fly in the many grand pools which are scattered along its course. For upwards of thirty miles the river flows through meadows, pastures and cultivated fields, and its angling possibilities are unsurpassed.

Game is also abundant in this section, partridges, snipe and marsh birds being found in considerable numbers. So plentiful are the first-named birds that the village store-keeper ships to market from five hundred to one thousand pairs in a season.

Farther north, in the barrens and wild country up the river, caribou abound, and in the autumn wild ducks and geese are obtained.

Photo. by E. A. Samuels.

LAKE AINSLEE, CAPE BRETON.

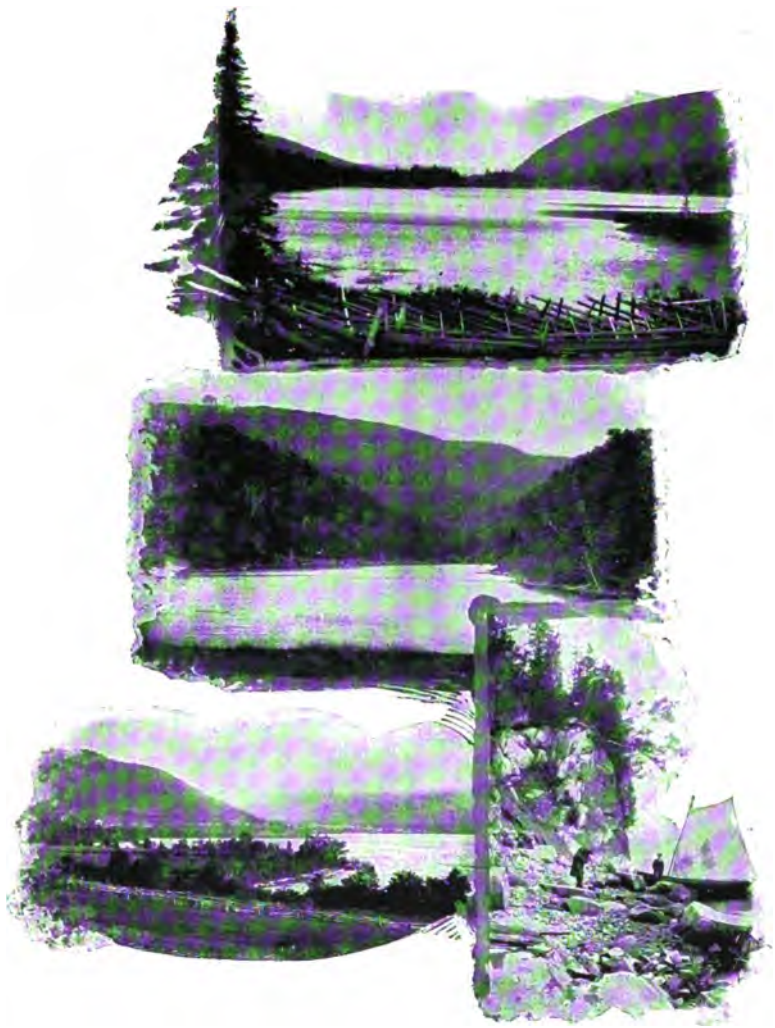
In leaving Northeast Margaree, the angler will do well to return to Baddeck by way of Whycocomagh, visiting Lake Ainslee on the way.

Here he will find near the head of the lake a large, deep pool, at one of the inlets, which is in the summer sometimes literally packed with sea trout and salmon. So numerous are the sea trout in this pool that, before it was protected from the attacks of poachers, a single "jig" hook has taken out upward of three barrels in one day.

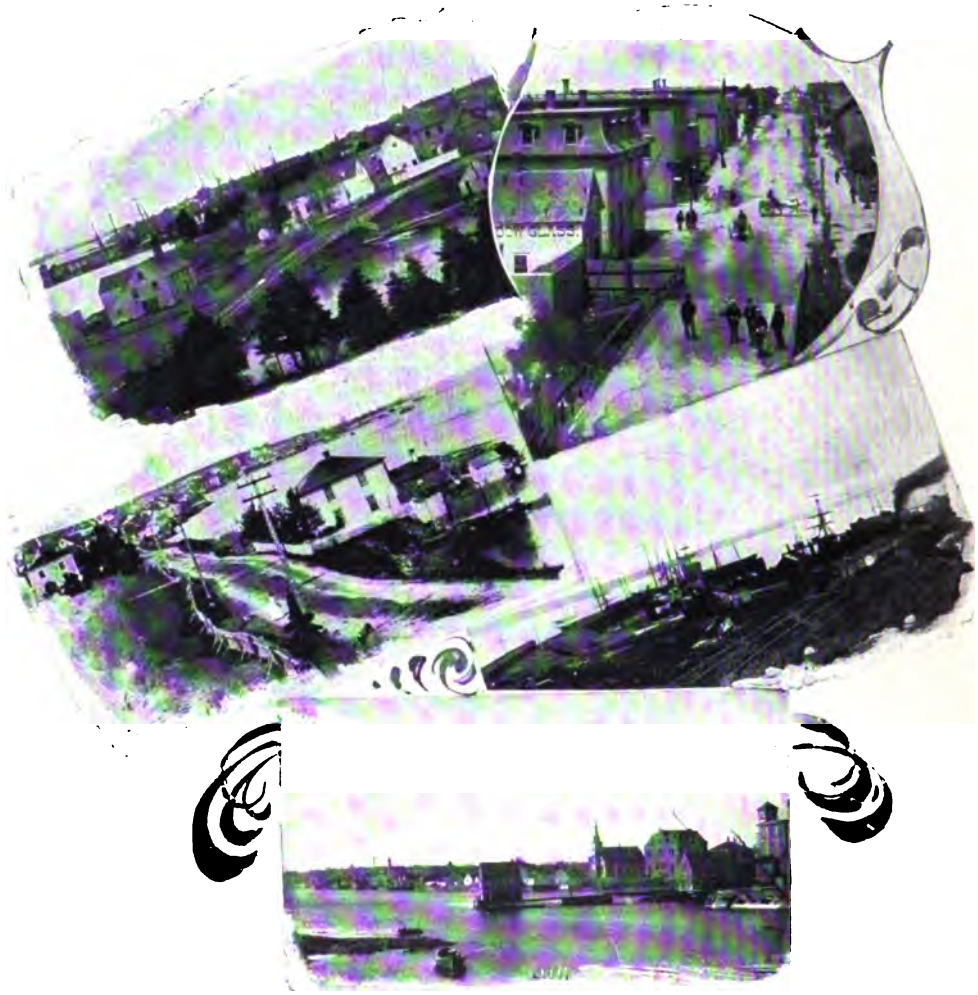
A Rugged Nova Scotia Cape.

The steamer to Halifax may be taken, or the train on the Intercolonial to St. John, N. B., and thence by rail or International boat to Boston. Or, if preferred, the train may be taken to Halifax, from which city the traveler can go to Boston by steamer, or by train *via* the Dominion Atlantic railway to Yarmouth, and thence to Boston by boat.

By many this last-named route is preferred, for the reason that the journey is through a picturesque and exceedingly interesting portion of the Province, passing as it does through the "Land of Evangeline," the beautiful Cornwallis valley, and the charming stretch of country around the Annapolis and Digby basin.



THE BRAS D'OR LAKES.



SYDNEY, CAPE BRETON.

CHAPTER XXIV.

GAME AND FISH IN MASSACHUSETTS.

ALTHOUGH densely populated and teeming with manufacturing and other industries of large magnitude, Massachusetts to-day possesses a variety of game and fish that is excelled by that of hardly any other State in the Union, and the number of sportsmen and anglers who refuse to avail themselves of the tempting offers which other sections present, and take their recreation in our own covers and upon our home waters, is larger than most people suppose.

With the exception of a few deer in Plymouth county — the killing of which, however, is forbidden by law — she has no large game, but, in consequence of her great topographical diversity, varying, as it does, from the hills of Berkshire and other western counties, to the great areas of level forest-lands in Plymouth and other eastern counties, and the vast stretches of marshes, meadows and sandy beaches which line almost the entire coast from Newburyport to Rhode Island, she provides a permanent habitat for a great variety of species, and a stopping-place for many others as they pass to and fro in their migrations.

Among our game birds, the ruffed grouse or partridge stands pre-eminent. It is our principal game bird just as it is the chief among those of the other eastern States.

Every patch of woodland in every portion of the State contains more or less of these birds, and the aggregate number which our coverts contain would, if it could be displayed, prove surprising.

It is a bird that generally seems able to take care of itself, so far as the sportsman is concerned, for in consequence of the pertinacity with which it is pursued, it is, in all sections of the State, wild and unapproachable, and the hunter who succeeds in bagging three or four brace in a day's outing is not only fortunate in the extreme, but is one who may be classed as a skilful sportsman.

It is not from the gun, therefore, that the numbers of our ruffed grouse are in serious danger of depletion, for undoubtedly twenty birds are killed by the snare in this State, to one that falls before the sportsman. Our law which permits the snaring of the partridge by the owner of land, or "*by members of his family*," is shamefully abused, and it should be stricken from our statutes, in which it should never have found a place.

The Virginia partridge, or quail, is another valuable game bird, one that is prized by many sportsmen almost as highly as is the ruffed grouse. It is now quite abundant in most sections of the State, particularly in Norfolk, Plymouth and Bristol counties.

In many localities, in consequence of the persistency of gunners and the severe winters, it was almost extirpated, and if no effort had been made to protect it, the species would now undoubtedly be rarely met with in this Commonwealth.

An important factor in its increase and preservation has been the work of the Massachusetts Fish and Game Protective Association. That organization has not only done much to secure the enactment and enforcement of wise game laws, but it has expended large sums of money in purchasing many hundreds of valuable game birds which it has distributed all over the State.

The Boston *Herald*, in commenting on this important work, said:

"Great gunning is in store for Massachusetts hunters, if the importations of the Game Protective Association now on the road only thrive.

"Whatever the result, those who care for the sport the breech-loader and dog afford, owe a debt of gratitude to those gentlemen who are making the experiment. If, therefore, in years to come the nerves of the hunter in this State are pleasantly stirred by the whir of the sharptail or the merry pipe of the California quail, let him remember who imported those fine game birds and brought them from the blizzard-swept prairie to add to the attractions of the old Bay State.

"Nine hundred and fifty prairie chickens from Nebraska are to be turned into Plymouth and Barnstable counties, which appears to be the most favorable locality in the State for an initial trial. A very near relative of that bird exists to-day on the island of Martha's Vineyard — the heath hen. So like is it to the prairie hen that only an expert can tell the one from the other.

"When the Mayflower first startled the natives by landing its passengers on Plymouth Rock, the heath hen existed upon the mainland. It was, however, only of local occurrence, and has long ago been exterminated everywhere in New England except upon the island aforesaid, where it is rigorously protected by the law.

"Although so like in appearance, its habits are essentially different from the western prairie chicken, it being more partial to the brush than the pinnated grouse.

"The bird now being imported is a handsome fellow, weighing two and three-fourths pounds when mature, and being unexcelled as a table bird. It is abundant in Iowa, Minnesota, Kansas and Nebraska, in which States it is of the greatest service to the farmer, living largely on the grasshopper. September 1 is early enough to shoot this grouse, and it then affords fine sport.

"The Columbian sharptail grouse is one of the finest examples of the grouse family. Comparatively few hunters in the East know much about it, as it inhabits wilder and more distant localities than the prairie chicken. The latter follows the farmer; the sharptail shuns man and his fields of waving grain. It has been noticed that, as cultivation creeps up the Missouri, this grouse gradually recedes, and the prairie hen takes its place. In 1888 it still lingered in Illinois; now it is hardly found to the eastward of northwest Minnesota. From that point it exists westward to the Sierra Nevada in suitable localities.

"This dread of civilization would seem to render its success in the East extremely doubtful; in all other respects it is an admirable bird.

"It loves best the underbrush along the margins of the western streams, and, during the early fall, lies well to a dog. It is tame at that season, and any good shot should kill two thirds of those he shoots at. They feed on the wild-rose seeds, buds and insects. Late in the fall and during the winter they stick more to the timber, and roost at night on the cottonwoods. It, at all times, likes the skirts of woodlands better than the open prairie.

"A bird from which great results are expected by those who are importing it into Massachusetts, is the California valley quail.

"It is most abundant in southern California, where, in favorable seasons, it is to be found in myriads. Strange to say, after a dry winter it does not breed, seeming to be aware that the food supply during the succeeding summer is likely to be precarious. It is about one fifth smaller than our well-known "Bob White," and is the game bird of its native land, where it may be found from the seashore to an elevation of six thousand feet above the tide-water.

"As a sporting and table bird it is certainly inferior to the eastern bird, being more prone to run than to fly, and, according to epicures, proving a failure as "quail on toast." But it is confidently expected that in this State the bird will change its habits for the better. It is well known that a bird that will run like a greyhound over open, sun-dried plains will lie well to a dog in cover that is a foot high.

"When the young valley quail are about three quarters grown they unite in flocks, numbering thousands, and are then hard to approach, and do not lie to a point until broken up. The best quail shooting in California lasts from September 15th until the middle of March; here the season will be considerably shorter.

"The California mountain quail is one of the most beautiful birds known to hunters. In size fully one fifth heavier than Bob White, its coloring is far more attractive. Its breast is slate-blue, its back, brownish-gray, and the swelling throat is enlivened by a band of white, with a

cinnamon fringe below it, while from the top of the bluish head rise a grayish-brown topknot and two long, slender, jet black plumes.

"Though of such superb appearance, this bird is not much esteemed for sport. Its habitat is far removed from the haunts of men, away up the slopes of the gigantic ranges of the Pacific coast. Perhaps for that very reason it is so unsuspecting and trustful that its killing is mere slaughter. At least, after a few shots the remainder of the bevy become much more alert, and then require straight powder to bag.

"In other respects they are admirable, being hardy, prolific equally with the valley bird, and not given to packing in the fall. Therefore, it is perhaps wise of the Association to try the effect of importing a few hundred.

"The last bird on the list is the Gambel's partridge, or Arizona quail.

"Three hundred of these little beauties are to be let loose near Cape Cod.

"Arizona is the chosen home of this quail, which inhabits every portion of the land from high, snow-covered mountain to burning desert, where the mid-day temperature is 140° in the shade. Therefore, it is a hardy bird. It is also a bird that will eat and thrive upon many varieties of food, and doubtless these two admirable characteristics have induced the Association to give it a trial. Like all the other quails, the hen rears a big brood, and they early learn to take excellent care of themselves.

"Care will be taken that these various valuable birds are liberated only on the lands of those who will look after them and see that they do not lack food. The plan usually adopted is to place the coops in some favorable locality, and, after the birds are turned out to leave these dwellings, to which they have become accustomed, on the spot, as they frequently return to roost in their old quarters for a week or two after regaining freedom.

"Food is a most important item. Possibly planting small patches of buckwheat, rye, etc., and leaving them unreaped, would do more toward increasing our stock of game birds than anything else.

"There is no finer sport than quail-shooting, and perhaps in years to come, if the present importations do not result as happily as gunners hope, it may be found preferable to import the ordinary quail from West Virginia, and provide it with food by sowing small patches of grain here and there in the neighborhood of swamps and thickets.

"But all should agree that if the Massachusetts Fish and Game Protective Association do not obtain success, they have, at least, deserved it."

While the many importations of the other birds by the Association have not always been followed by satisfactory results, those of the Virginia partridge, or quail, have undoubtedly proved of very great value. Localities in

BOB WHITE. GAMBEL'S PARTRIDGE.

which this species was almost a stranger are now well supplied, and in every section of the State may be seen the great increase of the bird, and in many localities it is now abundant.

Among our migratory game birds none are better known than the American woodcock. It is a common summer resident in almost every portion of the State, arriving within our borders in early spring, and remaining with us until the freezing weather of autumn drives it away.

The sport derived from woodcock shooting is highly prized, and a few brace of "flight birds" make a bag in which every sportsman takes pleasure and pride; for it is not every eye that is quick enough, and every aim that is sufficiently accurate to bring down this long-billed, brown-feathered "whistler."

The following is an extract from a most admirable article on the woodcock, published in *Lippincott's Magazine*, October, 1868.

"Woodcock shooting is pretty much the same kind of sport in all countries, with very slight variations. The woodcock himself is the rarest of game birds, and affords the genuine hunter a fine satisfaction, such as he does not realize from the pursuit and bagging of any other sort of game. He is the jewel of the field; and the right man will travel a hundred miles to the ground where he makes his habitat for the nonce, and think nothing of a twenty-mile walk during the day when he is after this valued quarry. Mostly other birds are comparatively easy to find, and not over-difficult to kill; but one must be something of a naturalist, and tolerably well skilled in woodcraft to boot, before he can hunt the woodcock with success. It is necessary to know when he will arrive at a given locality, and what are his haunts, habits, and ways of life in general, and to be especially familiar with the peculiarities of his flight.

"A plaguy, shrewd and most artful dodger is the woodcock, with a mathematical brain in his clodhopper-looking head, and as full of schemes as a spider. But varied as are his motions, so that one can never tell what will be his line of flight at any given time, nor his manner of flight,—whether it shall be swift or slow, tangled or straight,—yet he obeys a regular series of laws, and never, or rarely, flies at random. He must, from what we have already seen, possess an intuitive perception of space, and the ins and outs of place. The sportsman never catches him in a network of tree-top branches. He is too deep for that, the old woodsman! and shames our human woodcraft by his knowledge of woodland geography, although how he acquires this knowledge must forever remain among the many things that are hidden.

"No game bird presents so mixed and heterogeneous a character as the woodcock. He is swift and slow by turns; easily put up and very hard to stir; truthful, and a most gay deceiver. He will lie so close at times

after pitching that the best dogs will miss him, because then there is no scent to guide them to their prey; and at others, in a thick cover, he will start up like an armed man, in full panoply of war-wings, from under one's very feet, scaring a young hand into what is called "woodcock fever." But then is the time for the hunter to shoot and take the risk of killing his bird. But he must take care to shoot, if possible, before the bird rises to the height of the tree's branches. Happy-go-lucky shots are the only ones which can be made on these occasions. The rule is to shoot at the first clear sight; if none such happens, then try a snap-shot as he flies through the wildering maze of foliage; *he* will not be bewildered, whatever *you* may be. Some men, and old hands too, will wait until he makes his angle from the perpendicular, or they will shoot whilst he is describing the perpendicular, no matter how thick the obstructions; but I think the first clear sight is best, as being always surest. But do not give him too much time under any circumstances.

"I have said something before about woodcock knowingness; and it is quite true that at times they play with man's conceit, and mock his conclusions. For example, it is natural enough to suppose that birds scared from their lairs, and rendered wild and mad with the roar of the hunter's artillery, would never be so foolish as to return to that place, lest a fatal calamity should befall them. But I have known these cunning birds to do this very thing, and that, too, within an incredibly short time after they were flushed. It is their habit, also, to stick to old localities; and if the sportsman find them in a particular spot to-day, he is pretty sure to find them the next day in the same place unless somebody has been poaching on his manor, and has killed and bagged them before he could get upon the ground.

"In the absence of markers, the hunter should not neglect the most unlikely places, for he will often find where he least expects such good fortune. Perennial bushes, willows, spruces and the like, are covers which the woodcock loves, and should never be slighted. At all times he is more likely to be found in sunny slopes with a southern aspect than in a colder habitat. He does not like frost, and soon leaves us for a warmer climate when winter sets in, gradually getting nearer and nearer to the sea, occupying all the warm, secluded valleys in the depths of lonely woods *en route* until the clock strikes, and he is off beyond our northern ken."

A correspondent at Digby, N. S., in speaking of the close of the woodcock season at that place, says:

"For many years past, I have watched the departure of our woodcock at the close of the season (which means when the ground gets so frozen and the springy places closed up with ice that their mandibles cannot get through). They leave us for about five months for warmer localities, and

about the middle of April can be seen and heard again in our swampy woodlands. Their departure, owing to the season, seems to be later every year. In 1870, I shot my last bird on the 10th of November. This was then considered very late. In 1880, on the 14th November, in 1886, on the 18th November, in 1890, on the 25th, in 1891, on the 26th, and in 1893, on the 1st day of December, I shot a couple. The birds were not large, but very fat, and this fact applies to all the cock shot after the 1st of November. They seem of a uniform size, not large."

The common, or Wilson's snipe, is another species that is very generally distributed throughout the State in the migrations, every stretch of meadows containing some of these birds. The habits of this snipe, as well as our other beach and shore birds, have been treated of so fully in another chapter, that it is unnecessary to enlarge upon them here.

In treating of snipe-shooting, Mr. J. Moray Brown says:

"Snipe-shooting has one great advantage; it can be enjoyed by the poor man as well as the rich. . . . All that is necessary, is wet, marshy ground, and the rest must depend on the caprice of one of the most capricious of birds. The snipe comes and goes as the season or the weather changes, or perhaps at the ruling of some still more mysterious influence. He 's here to-day, gone to-morrow; now frequenting ground where you make certain of finding him at home; at other times, and under apparently most favorable circumstances, deserting it. In fact, his pursuit has always that concomitant amount of uncertainty which enhances the delights of sports. Then, too, snipe offer, as a rule, such difficult and sporting shots that the knocking down of two or three couples will, in the eyes of most men not satiated with bird-slaughter, be more appreciated than the bagging of many partridges or grouse.

"The charm, therefore, of this particular form of sport, lies in its uncertainty, its essentially wild surroundings, and the satisfaction of finding one's game, and holding one's gun straight. I may be unduly enthusiastic, but to me there is a charm in the mere splashing through a bit of snipe bog, a thrill engendered by the '*s-c-a-a-pe*' of a snipe, as he shapes his tortuous flight, that the whir of the pheasant never awakens. I know my game is thoroughly wild. I have looked for him in the proper place, and approached him in the right direction, and if, as I catch a glint of his white under-wings, I have 'straight powder' — why, I glow with pride and pleasure.

"But beware how you search for him in some places, or your enthusiasm may place you in an awkward predicament, for the snipe loves quaking bogs, and if you venture too far, you may souse in up to your armpits in mud, weeds and water, and find some difficulty in extricating yourself. Under such circumstances, and having to exercise due caution in advanc-

ing on his stronghold, the difficulty of making good shooting will naturally be considerably enhanced, for there is no standing still whilst the birds are driven to you, and you have to look out for two things: your safe footing in a treacherous bog, and your game. Snipe frequent queer places at times, places that border so closely on civilization and traffic, that one would hardly expect to find such essentially wild birds in them."

Chatham and its neighborhood is the favorite locality for shore-bird shooting, but good success is often had in the large extent of marshes between Newburyport and Ipswich. Canada or wild goose and brant shooting from stands are enthusiastically followed by a large number of gunners. These, as well as coot shooting from boats, are fully described elsewhere in this volume.

The systematic methods followed in stand-shooting of black ducks is well described in the following, which was written by a sportsman after a visit to a famous ducking stand owned by Mr. Charles M. Bryant.

The "camp," "hut," or "shanty," by either of which not very euphonious names it is the custom to speak of the house (although its appointments, both interior and exterior, are anything but those which such a name might imply), is located on the shore of a beautiful pond or fresh-water lake in the town of Weymouth, perhaps a mile and a quarter long and three quarters of a mile in width. The shores are densely wooded for the most part, a sand and gravel beach extending around the entire circumference except here and there a trifle of swale ground.

The "camp" or "stand" is at the southerly side on a wooded point making out into the lake. Back from the water's edge, say twenty feet, is a stockade fence, perhaps five feet high and one hundred or more feet long, built in crescent shape, the convex side facing the lake, and this is trimmed on the lake side with pine boughs, the branches extending above the top of the fence to shield a man's head from view, yet open enough to afford observation from within; port-holes through the boughs facilitate vision. Some fifteen feet back from the fence is the house or "cabin," a long, low structure, thirty by fourteen feet, and six feet stud, with a gently pitched roof, stained the color of the surrounding foliage, this being admirably designed by its owner for its use.

It contains three rooms. A living room, with lockers upholstered with leather (for no chairs are allowed), a sleeping room fitted with spring bunks, similar to those in the staterooms of a Sound steamer, and a kitchen with end partitioned off for an ice chest and provision room.

In the rear of the cabin the ground rises sharply, studded with a heavy growth of stately oaks and thick underbrush, to a high elevation, commanding a magnificent view of the surrounding country.

The roof and sides of the cabin are "brushed up," as it is termed,

STAND, BEFORE IT IS HIDDEN BY FOLIAGE, OR "GREENED UP."

STAND, AFTER "GREENING UP," WITH LIVE DECOYS ON THE BEACH.

LIVE DECOYS AND BEACH IN FRONT OF STAND.

INTERIOR OF BLIND, SHOWING SPORTSMEN READY FOR A SHOT, AND PENS IN WHICH THE LIVE DECOYS ARE KEPT.

which means that like the stockade fence, it is shielded from view by being covered with pine boughs.

A person unaccustomed to the locality might row a boat along the shore of the pond, fifty feet from the stand, and be wholly unaware of its existence, so cunningly have all the surroundings been taken into consideration and made to assist in the deception.

Now for the *modus operandi* employed to decoy the fowl, in which the ingenuity of man circumvents the natural shyness and sagacity of the birds, and they are lured on to meet their Waterloo; for it is conceded that of all the feathered tribe, the cutest and most wary is the black duck. Frightened at the slightest noise, taking quick flight at any moving object, with all senses constantly on the *qui vive*, it requires cunning, invention, and an intimate knowledge of their characteristics to decoy them within shooting distance.

Some sixty or seventy wooden decoys, or "blocks," as they are locally termed, are anchored about two gunshots from the beach, arranged in triangles, made by nailing three laths together, and nailing a decoy to each point; thus preventing them from swinging together, or assuming unnatural positions, by the action of the wind.

A stake is driven down in the pond, and a line run under water, through a pulley on the stake to the shore, and under the stockade fence.

To this line is fastened a bunch of the wooden decoys, which may be pulled in or out, after the manner of the "breeches buoy" used in the life-saving service.

A little less than gunshot from the shore are wooden "stoppers," or cork floats, fifty feet apart, and extending the length of the beach. This defines the shooting distance or "dead line," anywhere inside of which a duck is within killing distance. Thus, nothing is left to guess-work, but everything is worked out to a mathematical certainty.

Within two feet of the beach, about ten feet apart and running the length of the shore, are anchored the live decoy ducks, a perfect picket line, and they swim and quack, quack and swim, flutter and quack night and day. Inside the stockade fence, arranged along its entire length, except a space here and there to stand in, slatted pens are built, where fifty or more live ducks are kept to be used as decoys or "flyers."

Long before daybreak the sonorous quack, quack, from fifty throats breaks the stillness, and a wild duck must be utterly devoid of gregarian instinct that would not be filled with an overwhelming desire to fraternize with such a harmonious family.

Everybody is up and dressed a full hour before daylight and the utmost silence is preserved, for we believe that ducks have come in during the night and are in the vicinity of the "blocks." All the windows are

provided with shutters, and before opening a door every one of them must be screened. Silently the low rear door is opened and we stealthily steal out through a bower of pine boughs and trees that stand like grim sentinels in the uncertain light, and creep carefully to the stockade fence.

The guns, always loaded, are standing there ready for immediate use, and as soon as one is fired the keeper swabs it out, reloads it and places it in firing position again.

All eyes are strained to peer through the semi-darkness, out on the lake. The ducks in the pens are lustily quacking, and those in the picket line on the beach exercise their vocal organs just as effectually. But hark! yes, sure enough, out among the "blocks" comes the answering call of the wild fowl.

There is game among the decoys, although the eye cannot as yet distinguish it from the wooden imitations.

Now the birds in the pens are brought into requisition and are unwittingly made to lure their untamed species inside the "dead line." The keeper, for one is kept constantly on the place, reaches into the pen and picks up a duck or "decoy," and passing cautiously to one end of the stockade throws her into the air.

With a lusty quack the bird flies out over the water and describing a semi-circle returns and alights in the picket line on the beach.

One after another of these "decoys" are sent out, sometimes as many as thirty or forty being used, until confidence is begotten in the wild ducks and they follow to their death.

A bunch of ducks is now close to the line and the guns are pointed ready for slaughter. All are cautioned not to fire until the word is given.

The pulse quickens as they slowly and unsuspectingly approach nearer and nearer the line of "stoppers." The heart almost stops beating as they cross the line. The keeper singles out and appoints each man his bird or birds. One — two — three — fire! A deafening roar and a furious volley of leaden pellets greet the advancing game, and those that feel well enough to try to depart are treated to a second volley. Fortunate, indeed, is the bird that lives to recross the "dead line."

From daylight till dark the keeper is on the watch for flying ducks, and the quacking of the decoys is broken only at infrequent intervals.

A bunch of ducks flying over the lake in any direction may be diverted from its course by flying these "tollers."

At times the wild birds will sit for hours among the wooden "blocks" and refuse to be enticed nearer shore; at such times the "blocks" previously mentioned as being fastened to a line and pulley, are slowly drawn toward the shore, and the live birds follow, apparently unconscious of the deception.

Practically the same methods are employed for geese, except that some thirty or forty live geese decoys are kept in "fly traps," the front being built on an angle.

These traps are taken back on the wooded hill and a cord run down to the "stand."

When the wild geese are seen the cord is pulled and the front of the trap drops down, forming a platform from which the decoy geese fly out over the water.

The trout brooks of Massachusetts are many in number, and there are hundreds of living streams which, if proper efforts were made, might easily be stocked with one of the favorite fishes of the angler. Something has been done in this direction, but vastly more remains to be accomplished.

The black bass, with which many of our lakes and ponds have been stocked, is now abundant in this State. Pickerel, perch, and other fresh-water fish are found in almost all our ponds and rivers, and they furnish no little sport to those anglers who do not strive for higher game. Our salt-water game fish are so fully treated of in another chapter that any mention of them here is superfluous.

As before stated, Massachusetts possesses a great variety of game and fish, and she often furnishes our sportsmen with highly satisfactory outings.

It is something to have at our own doors an opportunity for an occasional profitable day's sport, and we cannot be too careful to foster, preserve, and increase the "good the gods have given us."

The pleasures connected with, and the benefits to be derived from the use of the rod and gun, have been recorded by the pens of many gifted writers. Dr. Heber Bishop, one of our most enthusiastic sportsmen, treats of them in the following language:*

"To be a successful hunter, a man must have acquired a great many virtues that are not taught in any school but that of the forest primeval. He must learn patience and courage and fortitude. He must be cool in danger, calm in victory, and he must inure himself to privations, which develop the qualities that secure the desideratum of the old philosophy: 'A sound mind in a sound body.'

"There is nothing that will build up a feeble or impoverished system like the air and the exercise of a hunt after big game in the woods. The long tramps over uneven ground, the all-day journey through the uncleared wilderness, and the treacherous morass and bog, bring into play every muscle and every mental effort that produce strong men capable of coping with any problem that life presents.

"Everybody is familiar with the character of the native woodsman, whom we all unite in admiring.

"There is something in the very atmosphere of the uncivilized haunts

*In Boston *Globe*.

of bird and beast that furnishes a tonic for the poisoned lungs of men who spend the greater part of the year in the crowded and smoky cities.

"The true sportsman is not the man who simply knows how to use a gun. The only kind of hunting that appeals to him is that which involves a veritable contest of wit with the animal hunted. The man's patience and ingenuity and perseverance play almost as important a part as the rifle plays in overcoming the native skill, agility and cunning of the game.

"The man who would become a successful hunter, must show his superiority over the game which he pursues, by other means than those which the implements of the chase afford. The true sportsman does not go out merely to kill, and if he did, his reward would not be sufficient to justify a repetition of the undertaking.

"He goes into the woods for many things that are more delightful even than a successful conclusion of the hunt.

"If all his arduous efforts finally are rewarded by success, he feels an additional joy, of course, but if he comes back without a single trophy of the chase, he has secured a benefit and a delight which nobody who has not been engaged in the same occupation ever can realize.

"His head is cleared and his body is hardened and strengthened, and there is no duty in life which he cannot meet with greater courage and capacity than were his before he partook of the peculiar pleasures of the pathless woods.

"In conclusion, I would like to say that on my many hunting and fishing trips I have met some of the noblest men in the world, and formed and perpetuated friendships that are more valued than anything else on earth.

"We never meet mean men in the woods. Such men have nothing in common with the woods and lakes, and mother Nature has no charms for them. If, by chance, you happen to run across such a person, you may be assured you will never meet him under like conditions again, for he never visits the woods a second time."

In this connection, a few words in relation to the work of the Massachusetts Commissioners of Inland Fisheries and Game will not be out of place. That commission, which was a pioneer in its special line of work, has had among its members some of the most prominent and most highly respected men in the Commonwealth, such as Col. Theodore Lyman, Hon. Asa French, and Prof. F. W. Putnam.

Its annual reports give a good idea of what it desires and accomplishes, and a file of these shows the status, year by year, of the great interests it has in charge.

Undoubtedly, with larger means at its disposal, it might have accomplished more than it has, but its labors have unquestionably been of value,

and their beneficial impress on the condition of our fish and game is plainly apparent.

The following extract from the Report of the Commission for 1895, will be read with interest:

"The law protecting quail during the entire year of 1894 has had a marked influence on their increase. They are reported plenty in all sections of the State this fall, showing conclusively the advantage of a shorter open season.

"The ruffed grouse, or partridge, partly through climatic conditions and partly from stringent enforcement of the law, has also been more abundant than for several years past.

"The open season for these birds commences the 15th of September, and for quail the 15th of October. Owing to the lawlessness of many sportsmen, this practically makes the open season for both birds the same, and renders it almost impossible to enforce the law for the protection of quail. The open season should be the same for all our inland game.

"An instance, and a marked case, showing the results of protection, is found in the Middlesex Fells. This section, containing several thousand acres of wild, uncultivated land, was formerly one of the best shooting grounds in the State, but its close proximity to Boston, giving easy access to both native and foreign-born sportsmen, led to its depletion. Two years ago, when the Metropolitan Park Commission took possession, there were a few partridges in it; probably not one but had been shot at at least a dozen times. The two years' protection has made a great change. No shooting or snaring is allowed in the park, and the increase of game is remarkable. The same increase all over the State would provide recreation for overworked men, and also supply a considerable amount of very desirable food.

"The laws of Maine for the protection of fish and game, especially for the large game, are stringent and well enforced, and the consequence is that hundreds of thousands of dollars are annually expended in that State by sportsmen and tourists from other States. No small amount of this comes from Massachusetts, which, by well-regulated laws strictly enforced, could, at least much of it, be retained at home. Certainly healthy recreation and excellent food could thus be provided for those who have not the means to go to the wilds of Maine and New Hampshire.

"The last Legislature of Maine placed thirty thousand dollars at the disposal of her commissioners for the protection and propagation of fish and game. As a financial investment for the benefit of the State, this appropriation was not called in question.

"If we may judge by the numerous communications received by this Board from all parts of the State, public opinion is ahead of legislative

Hon. ASA FRENCH, BOSTON.

Fish Commissioner of Massachusetts from 1874 to 1882.

Hon. ISAIAH C. YOUNG, WELLFLEET.
Commissioner of Fisheries and Game, Massachusetts.

ARTIFICIAL BLACK BASS LAKE IN GRANVILLE, MASS., OWNED BY RALPH B. COOLEY.

BOAT HOUSE ON PINE LAKE IN GRANVILLE, MASS., OWNED BY RALPH B. COOLEY.

enactments. In one sense, fish and game cost nothing, as they are the products of land and water which otherwise would not be utilized, and are so much clear gain in the economy of living. It has, however, a still more important bearing on the welfare of the State. Land without game or bird-life, and water without fish, are a desolation and destruction of the balance of nature. It means the swarming of noxious insects, fatal to agricultural products, and the existence of myriads of animalculæ and larvæ in the water, constantly decaying and rendering the water unfit for use. In its sanitary and economic effect on human life the importance of maintaining this balance of nature cannot be overestimated."

CHAPTER XXV.

Fish and Game in New Hampshire.

By FRANK BATTLES.

FRANK BATTLES,

Adjutant-General of the Department of New Hampshire, G. A. R.
Member of the Fish and Game Committee, New Hampshire House of Representatives, 1896-'97.

ANY writer who is thoroughly familiar with the opportunities for sport which at present exist in New Hampshire, who attempts to place those attractions before the public in a manner to compare favorably with similar reports as to the conditions existing in the sister States of Vermont and Maine, will find himself at a disadvantage if he confines himself strictly to the facts.

This handicap presents itself, for the simple reason that the leading sportsmen of the two States referred to, long ago succeeded in convincing the public what a prominent factor in its general prosperity, from a business point of view, were, and could be made, their vast fish and game interests; while, on the other hand, it has only been a comparatively short time since the general public of New Hampshire began to realize their importance. This late awakening, quickening, as it is, into commendable energy, will, in the near future, be productive of grand results; and it is due largely to the efficiency of the present Board of Fish and Game Commissioners, and the evident disposition of the sportsmen throughout the State to endorse their actions, and assist them in the performance of their duties.

Quite a number of county and local leagues are in existence, organized solely for the protection and propagation of the better varieties of fish and

game. Existing statutes have been recently amended, and sumptuary laws have been enacted, that were considered by far-seeing and thoughtful sportsmen to be absolutely necessary to bring the Granite State into her proper position as a fish and game resort.

In view of the foregoing, the writer craves the indulgence of such of his readers as might suggest that in these pages *possibilities* are too often hinted at.

MOOSE, CARIBOU AND DEER.

As the last legislature passed a law prohibiting the killing of moose or caribou within the limits of the State for a period of five years, it is unnecessary to devote much space to these animals.

Moose, although not abundant, are by no means rare in New Hampshire, and it is more than likely that the above-named proscription will add largely to their numbers, so that at the end of that time, with the killing properly restricted, the legitimate pursuit of this noble animal will be well rewarded. Although the caribou is a great traveler, given to extensive roaming, with no especial object in view, except apparently to be continually on the move, it is hoped that by including them in the statute above referred to, enough of them might make their habitat in the vast timber regions of the northern part of the State, in such numbers as to enable the hunter of big game to add an occasional specimen of this animal to his trophies.

In only a portion of New Hampshire is there at present any open season on deer, viz.: Coos and Carroll counties, and a part of Grafton county. Throughout the rest of the State those animals are protected at all seasons until September, 1901.

During the last year deer have been occasionally met with in the southern portion of the State, and in the central portion very frequently reports are brought in that they have been seen in this or that locality — oftentimes several in company — and it is gratifying to be able to state further that in the northern portion they are very numerous. They have increased very rapidly within a few years, the increase being attributable in the main to the vigilance of the commissioners and their deputies, in shutting off the nefarious custom of crust-hunting, which, until recently, was very extensively practised. The writer would not assert that deer are not sometimes taken illegally in the State, but violators of the statutes in regard to them have been so speedily and vigorously dealt with whenever apprehended, that the laws are more than decently respected.

There are to-day sections of northern New Hampshire where, according to the most reliable reports, deer are as plentiful as anywhere in the Maine woods; but these remote localities are, at present, visited by but few, as the facilities for sport are as yet undeveloped, the region being

FRANCONIA MOUNTAINS, FROM NORTH WOODSTOCK.

difficult of access in the first place, and there being no positive assurance of obtaining a reliable guide: for as yet, in this State, comparatively few persons follow the vocation of professional guide. There are, however, in every village or town in the upper country, one or more persons who, familiar with the surrounding woodlands, through their love of fox hunting, an occasional tramp after a deer themselves, or by working in the lumber camps during the winter, would be almost sure to give a visiting sportsman a shot at a deer.

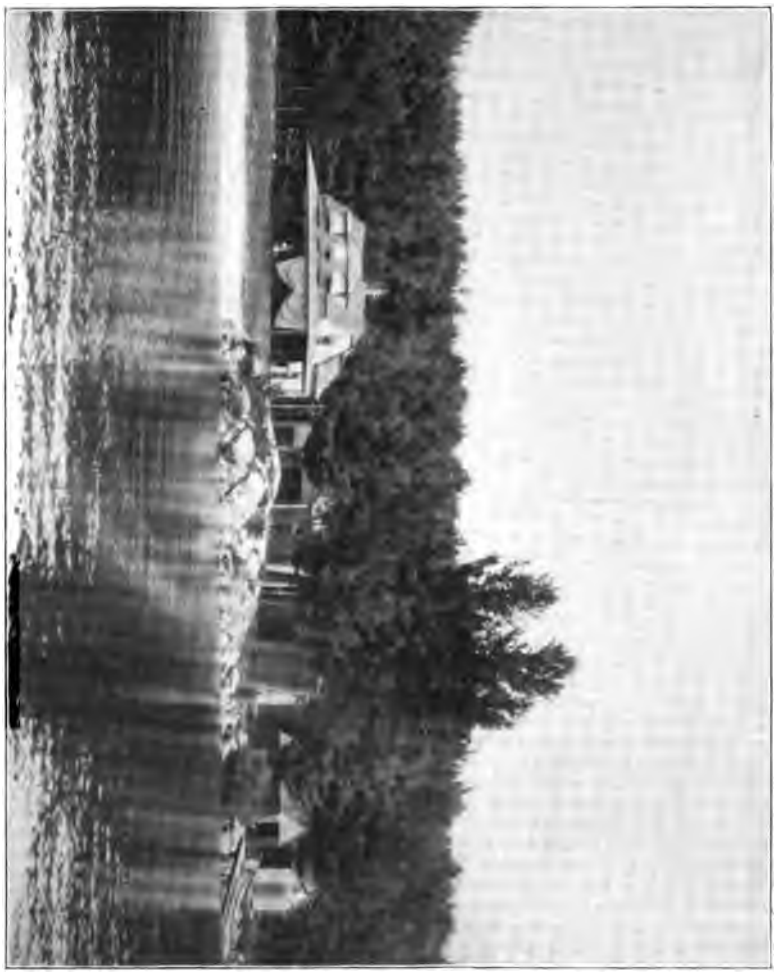
An article relating to deer in New Hampshire should, perhaps, contain a passing reference to the Blue Mountain Park Association, so called. At the time of the purchase of "Croyden" mountain a few years since by the late Austin Corbin, and the announcement that the purpose of the purchase was the founding of a gigantic game preserve, much dissatisfaction was expressed that so large a portion of New Hampshire's wild and uncultivated land was to be reserved for the exclusive pleasure of a few, and the sportsmen of the State prepared themselves fully to defeat any legislative privileges which the association should ask for.

When, however, the intentions of Mr. Corbin in establishing the park were fully stated, and the objects of the association were made known, no opposition was offered, and the present relations between the managers of what will soon be probably the greatest deer park in the world, and the sportsmen of the State, as represented by the Board of Commissioners, are entirely harmonious, as, under existing arrangements, New Hampshire, herself, will be considered first of all, in supplying animals from the park to replenish from time to time her stock of native deer.

FOX HUNTING.

To that numerous class of sportsmen to whom nothing brings such pleasurable excitement as the melody of the hounds, and whose experience has taught them that the pursuit of no animal affords the chances of gratifying their tastes in that particular as does the fox, New Hampshire lays just claim to be in the front rank of desirable localities. Foxes are abundant throughout the State; in fact, from a bird-hunter's and possibly from a farmer's standpoint, they are too plentiful, and there are not as many residents who make a business of running foxes with dogs as might be expected; for there is no section of the State in which, on any day when "scent will lay," a fox cannot be started without delay. Of course, some places, owing to the lay of the land, afford better opportunities for getting a shot, or of hearing the music of a spirited run than others; but there are foxes enough everywhere, despite the fact that scores and scores of them are trapped every season.

While finishing the subject of foxes and hounds the writer would say



CAMP MILLSTONE, TUFTONBOROUGH NECK, N. H., OWNED BY ROLLIN JONES, BOSTON.

to those who consider fox-hunting a little too arduous, that the swamps of the central and northern portions of the State teem with northern hares, and those who enjoy the hounds know full well the sport derived from having a couple of true-running hounds in a rabbit swamp when the following is just right, although the game when brought to bag is valueless.

BIRDS.

WHEN the question of brush-shooting over a dog is considered, New Hampshire again takes a rank among the foremost localities in the opportunities she offers, in that, to many, the acme of all true sport. This statement will be corroborated by the scores of non-resident sportsmen who do their fall shooting in the State.

This applies to ruffed grouse and woodcock more particularly, although in some years — notably the year of the penning of this article — quail are unusually abundant in some sections of the State.

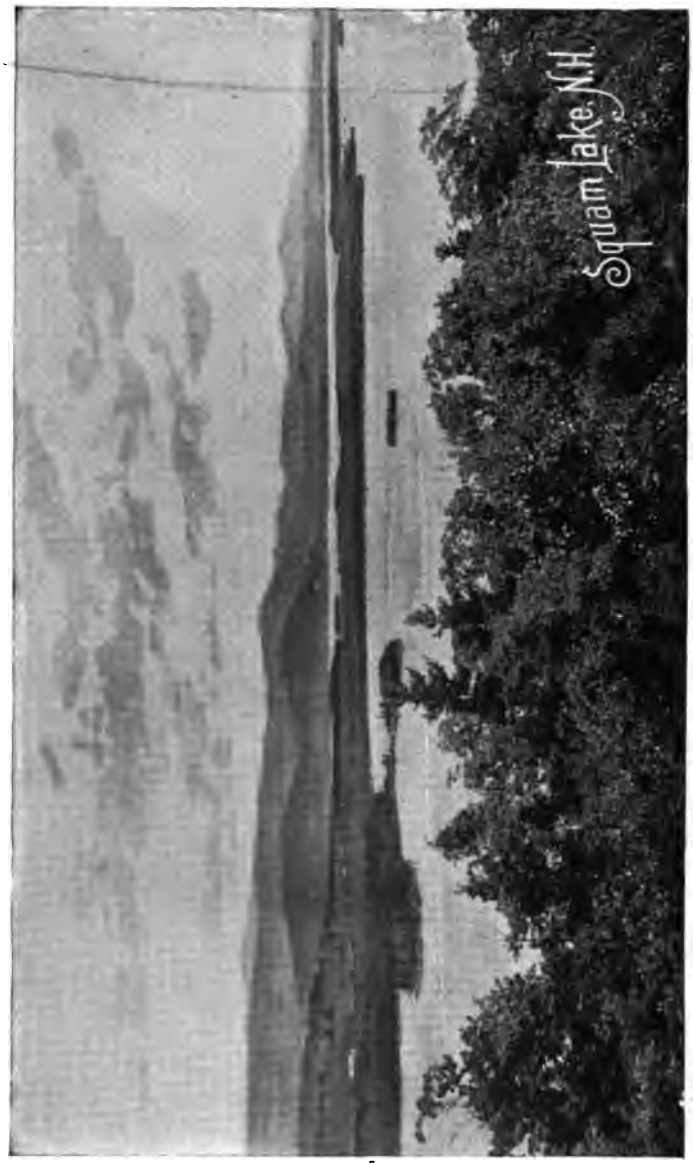
New Hampshire, without any disparagement to other States of New England, is the home of the ruffed grouse or partridge, as we all call it. This is largely due to the configuration of the land, the water courses, and the innumerable streams flowing through territory, which, owing to the wooded growth thereon, affords the most favorable conditions possible for the propagation of this grand game bird, generally acknowledged by all-round sportsmen to be the king of them all, and the pursuit and capture of which brings a thrill of pleasure, unequalled in the bringing to bag of any other variety. In fact, successful late grouse-shooting in New England is absolute science, requiring consummate skill on the part of the hunter; and it is entirely different from any shooting in which it has been the fortune of the writer to participate.

The veriest tenderfoot can easily obtain a shot at a deer or a moose and very frequently brings down his quarry.

The most inexperienced man in a party often catches the largest trout, and the getting in the right place in front of a fox is largely due to chance; but he who cuts down a full-grown November partridge, as he hurtles out of the edge of a thicket, or from beneath the shelter of an old brush fence, ahead of his trusty setter or pointer, has accomplished a feat from which all elements of luck are eliminated, and the reliable performance of the trick is due to an acquired skill, which only years of experience can bestow.

Some of my comrades in sport will very likely question this statement, calling to mind the rapid flight of the prairie chicken or the immense velocity attained by the black duck and teal, or perhaps, in years gone by, that of the wild pigeon as he passed one's stand, flying from one feeding-place to another; the writer unassumingly remembers being with them all, but there is a sameness to the shots offered, which, while they require nice calculation and a cool head, a fair wing or trap shot soon masters.

SUNAPEE LAKE, FROM SUNAPEE MOUNTAIN.


Squam Lake, N.H.

Not so with the partridge of New England, for given a certain number of shots at these birds, say fifteen or thirty in a day's gunning, no two of them will be alike, and it is doubtful if in a whole season's shooting, any two shots would be exactly similar, and in this lies the charm of the sport, as the gunner must be always on the alert.

Recent laws regulating the capture and sale of game in the State have conduced to increase greatly the number of partridges, and with the exception of an occasional year like the present, when, during the season of hatching the weather was very unfavorable, they are very abundant, and the visiting sportsman, who possesses in a good degree the qualifications alluded to, is sure of satisfactory sport in almost any section of the State.

WOODCOCK.

SOME acquaintances of the writer in different parts of the country consider (and there are doubtless many others who share this opinion) that woodcock shooting is sport *par excellence.* The writer, himself, freely admits that to be on a birch hillside of a sharp, frosty morning, when a flight is on, affords sport of the grandest type, and it is indeed a mooted question whether the enchanting whistle of the golden cock or the startling whir of the partridge appeals more strongly to a sportsman's nerves.

In any event, New Hampshire offers the charms of either; for good cock-shooting is found in very many parts of the State, both as to native bred and flight birds.

Of course, woodcock, being necessarily restricted to certain kinds of cover in both their breeding and halting places, must be sought in their favorite haunts. But there are plenty of good breeding grounds that furnish very good shooting on local birds, and numerous hills and swales of more or less extent throughout the entire southern and central sections of the State have every characteristic of cover and bottom favorable for arresting and holding the northern birds in their autumnal flight.

QUAIL.

AS has already been hinted, quail are very unreliable birds so far north as central New Hampshire, by reason of their being so often entirely exterminated during severe winters when snows are deep. They are chiefly dependent on seeds for their food supply, and a deep snow completely buries the plants on whose dry seeds they subsist, and they become emaciated and easily succumb to the extreme cold, which they would readily withstand when in good flesh.

Every spring, quail are purchased in the west and brought here by public-spirited sportsmen of the State. They are liberated in favorable spots for breeding, and the progeny of these birds are frequently found in

the late fall affording sometimes a day's sport, which is in reality the only result expected from the importations.

OTHER GAME BIRDS.

SPORT derived from shooting game birds in the State, other than the more prominent varieties already considered, may, perhaps, be properly treated under one head.

New Hampshire's coast line being of limited extent, but little of interest can be said concerning "beach birds," so called; while, presumably, on the marshes at Rye and Hampton, some of the well-remembered visitants of former years are occasionally seen, marsh-shooting is a sport of the past. To us older gunners, as fond memories take us back to the times when the New England marshes were alive with hundreds of black-breasts, beetle-heads, doe birds, and winter yellow-legs, during the flights, with a crack at curlew and "humility birds," often enough to make it interesting, this condition brings many a sigh of regret; but the fact remains.

Wood-ducks breed largely on the wooded streams of the State, and black ducks in the interior are fairly common.

Their systematic hunting, however, is nowhere indulged in, except at Great Bay, where many local sportsmen regularly follow their favorite pastime of shooting "blacks." While it is no uncommon thing in other sections for an individual to get a successful shot at a bunch of ducks, in many instances the opportunities come more by chance than otherwise.

But one game bird remains to be mentioned — the upland plover, known to shore gunners as the "highlander"; correctly speaking, Bartram's sandpiper, a crafty one and no mistake, and possibly the most difficult one to bring to bag, owing to his wary disposition and the unfavorable weather conditions which usually exist during the time he is with us.

Probably, to most sportsmen who peruse these pages, this bird is comparatively unknown, and to them I will say that his intimate acquaintance will be cultivated with the most exasperating set-backs.

Arriving with us early in the spring, they breed in elevated hilltop pastures, where they remain among the bushes and hardhacks until the haying is completed on the intervales, when they betake themselves to those localities, remaining from the first till about the middle of August, when they leave us. It is during this short period of midsummer that the sportsman — weary of the long respite, since he placed his gun away in the December before, and anxious to get himself in practice for the September shooting soon to commence — does his plover shooting, or rather his plover hunting, for at its best it is more hunting than shooting.

Tramping the mowed fields all day under a blazing sun, chasing the elusive birds from one spot to another, with only an occasional opportunity

NORTH CONWAY, N. H., MOUNT WASHINGTON IN THE DISTANCE.

for a shot, and then hardly ever a satisfactory one — such is upland-plover hunting.

This bird, as before stated, is extremely wary. It seldom allows the gunner to approach nearer than thirty-five or forty yards, and, leaving its hiding-place in the short grass with three or four sharp, bewildering notes, adds ten yards more to the handicap with a couple of strokes of its wings, and is under tremendous headway, fifty yards away, before its pursuer, however quick he may be, can possibly cover him. Yet with all the advantage on the side of the bird, they may be killed. Among the writer's acquaintances in his own city are three gentlemen who are simply experts with the plover. They are crack shots, to be sure, on all kinds of game, but while there are others who keep handily along with them in the brush, on the plover ground they are masters of the situation. Very large breeding grounds for these birds in New Hampshire are not numerous, although some are found in nearly every section of it. Prior to a dozen years ago they were very abundant. At that time, for some cause unknown to the writer, they began rapidly to decrease, and were comparatively scarce until two years ago, when they reappeared in considerable numbers.

It is within the bounds of possibility that in New Hampshire, as well as in the other New England States, in a few years another valuable game bird will be added to the varieties already found, *viz.:* the ring-necked pheasant. In spite of the discouraging outlook at times, and the many unexpected difficulties experienced in effecting their primary introduction, the persistent efforts of a few individuals furnish strong probabilities of being eventually crowned with success; and that the birds, when once fairly established, will thrive, although the quality of sport they may furnish to the gunner remains to be seen.

Both the pure Chinese and the English ring-necks are being experimented with, and the progress of the venture is watched, and the ultimate result is awaited with much concern, both by the State officials who have the matter in charge, and by private individuals who have been directly interested in the movement from its inception.

FISH.

IT is to the credit of a majority of the people of New Hampshire that they have always been willing that the State should make some official efforts to preserve and increase its supply of valuable food fish, although the lack of any more than a passing interest in the matter, until within a few years, has prevented the accomplishing of results, which a little forethought, sprinkled with enthusiasm, would easily have made possible.

The recent radical change in public sentiment in favor of the fish and game interests in the State, and the acceptance of the fact that the officials

MOAT MOUNTAIN AND INTERVALE, FROM PROSPECT LEDGE, KEARSARGE.

having those interests in charge must be freed from all political fetters is already being felt, and the long existing wrangles between residents of different sections of the State, in our legislative bodies, on matters pertaining to fish and game, have ceased, and in their place is found a readiness on the part of all concerned to enact statutes of varying force, to meet the wishes of a resident majority in the different sections.

With this "era of good feeling" — with the fish and game laws of the State in a very satisfactory condition, necessitating no radical changes for some time to come, with the commissioners in almost constant consultation with representative sportsmen in all parts of the State — comes renewed activity in all matters pertaining thereto, strongly indicative of better results all round.

In no one direction is this manifest more plainly than in the management of the different State fish hatcheries, and in the distribution of their product; requisitions are coming in from portions of the State in which, until recently, no interest was ever shown, nor any action ever taken to improve the fishing.

The attentions of the commissioners are almost entirely devoted to the hatching of but four varieties,—landlocked salmon, lake trout, and the two varieties of square tails,— viz.: the common brook trout and the golden trout of Lake Sunapee. Almost every desirable body of water in the State has been carefully examined, and if considered suitable, large plants of salmon and trout of some variety have been made therein, and it is expected the same work will be continued.

Of the game fish which inhabit the waters of New Hampshire, perhaps, all things considered, the landlocked salmon stand at the head, and the frequency with which they are taken in several of our most beautiful lakes would seem to warrant the commissioners in redoubling their efforts to stock all other suitable waters with this most desirable variety.

Although it is not the purpose of this article to call attention to any one particular portion of the State as being more favorable for sport than any other, it might be mentioned that salmon are taken freely in Lake Sunapee and New Found lake, are not infrequent in Lake Winnipesaukee, and are thriving splendidly in several bodies of water not yet open to the public,— in fact, all indications point to the probability of landlocked salmon being the coming fish.

Comparing quite favorably with the above in many respects is the lake trout, very abundant in several lakes, and rapidly increasing in many waters where they have been planted — inferior to the salmon in table qualities, and less gamy, perhaps, still, the lake trout stands high in popular esteem, and is eagerly sought by hundreds of resident and non-resident anglers.

There are but two or three lakes in New Hampshire in the waters of

FOURTEEN-POUND LAKE TROUT AND NINE-POUND LANDLOCKED SALMON FROM NEW FOUND LAKE, N. H.

which the square-tail trout attains great size, but in these, specimens of five or six pounds' weight are often taken, and it is no uncommon occurrence to take from Lake Sunapee individuals of the *Aureolus* variety, equally large.

To compensate, perhaps, for this lack of opportunities of capturing large trout in the State, Nature has dotted the northern portion of her territory with ponds which actually teem with smaller trout, which afford abundant and highly satisfactory sport to hundreds of anglers from all parts of the country.

The trout brooks of the State are almost countless, and there is not a single section in which there are not one or more brooks which afford very fair yields; they are hard-fished, especially near the populous centres, and the aggregate catch for each season is enormous, so that it may be said that trout-fishing in New Hampshire, as a whole, affords very satisfactory results. Black bass may be caught in many waters of the States in quantities to amply satisfy the desires of those who derive pleasure from their capture, and the common kinds of pan-fish abound in all the ponds.

Pickerel are abundant in all the low-lying, marshy ponds in the northern part of the State, and are usually held in low esteem by the inhabitants, who can so readily supply themselves with trout. In the central and southern parts of the State, however, where the fish is in better favor, the ponds have been almost depleted by persistent ice-fishing, and recent legislation prohibits, for a term of years, this method of taking fish from a large number of the ponds of the State, so that the pickerel might again populate such waters; care was duly exercised in drafting this enactment, so that no pond should be included in which there was any possibility that any variety of the trout family could be successfully introduced.

Such, in brief, are the conditions which prevail in New Hampshire, as to her fish and game. Visiting sportsmen are welcome to enjoy the sport she offers, assured of the hospitality and attention of the resident members of the craft, and with the further assurance that the State fully intends to improve her attractions in every way, so far as it is possible for human oversight to do it.

The above article, by Mr. Battles (who is one of the best all-round sportsmen our State affords), is a fair presentation of the sport to be obtained in New Hampshire with rod and gun.

Sincerely yours,

NATHANIEL WENTWORTH,
Commissioner of Fish and Game.

CHAPTER XXVI.

EASTERN MAINE, NEW BRUNSWICK AND QUEBEC.

NEW BRUNSWICK, "the land of magnificent distances," offers great and varied attractions to the sportsman and angler.

Its great area of over 27,000 square miles contains innumerable lakes and rivers, in which salmon, sea trout and other valuable game fish abound, while in its extensive stretches of wilderness numerous deer, moose, caribou, bears and other large game await the coming of the hunter. On its seashores of upward of 600 miles in length, innumerable sea fowl and shore birds congregate in the autumn, and in its swamps and young growths of woodland, partridges and other small varieties of game are abundant.

There are two ways by which the Province may be directly reached from Boston. One, the sea route, by the International line of steamers to St. John; the other, by the Boston & Maine, the Maine Central and the Canadian Pacific railroads. Tickets to almost any desired point may be obtained at the offices of either of these lines. The International steamers are fine, large boats, and in the summer are great favorites with tourists. They touch at Eastport, Maine, at which point connection is made with a river steamer to Calais, and the sportsman or angler will find much to interest him in some of the localities accessible from that place.

By taking a train on the railroad from Calais to Princeton (or Lewey's island) at the foot of the great chain of lakes, known as the Schoodic lakes, one reaches a point from which he can, in almost any direction, seek for recreation. The lower of these lakes, called the Big lake, is a great resort for various species of ducks in the autumn, the "dead waters" of the streams which empty into it often containing myriads of these birds.

The dead water is sometimes miles in length, being bordered by meadows and swale land. In these meadows snipe and the marsh birds congregate in great numbers. The swamps in the neighborhood abound with partridges, and deer are also found in the forest behind them.

VIEW ON UPPER TOBIQUE RIVER, N. B.

At Princeton, Indian guides with canoes may be obtained, who are perfectly familiar with every part of the surrounding country. There is a small steamer by which the tourist may reach the outlet of Grand Lake stream, and a daily stage which goes to the settlement at the foot of Grand lake. Or, if he prefers, he can, with guides and canoe, cross to the waters of the East branch, where he will find in the lakes and streams which empty into it good trout and landlocked salmon fishing. In this wild region there are also many deer and a few moose, while partridges are very plentiful.

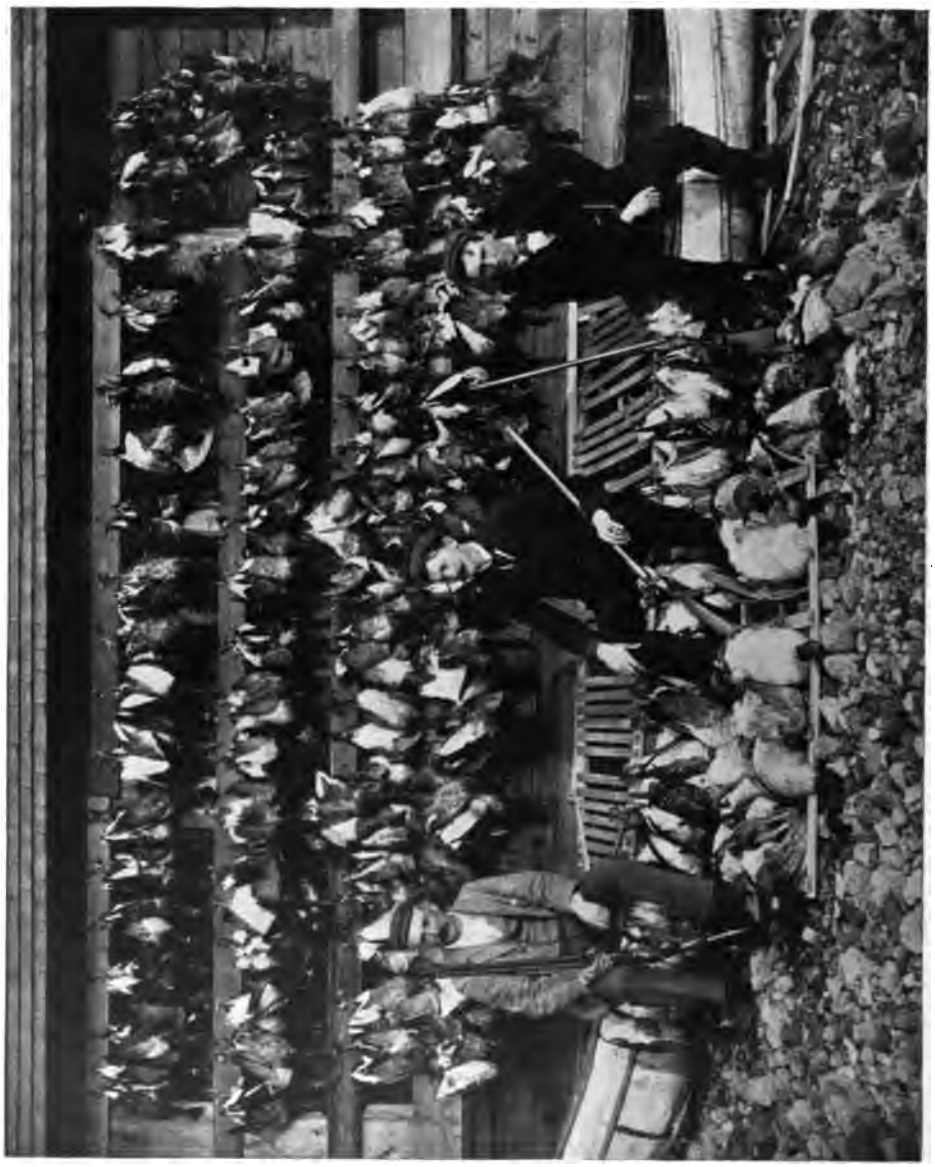
At the village at Grand Lake stream there are good accommodations for sportsmen, and capital fishing and hunting may be obtained. Grand lake is a large and handsome sheet of water, and it contains great numbers of the beautiful and gamy landlocked salmon. Togue, or lake trout, of large size are also taken, and in its tributary streams spotted trout abound. A great number of other lakes and streams may be reached from this point, and, if desired, a long tour by canoe and portages may be taken to more distant points, even to the tributaries of the Penobscot and Machias rivers.

From the village at Grand Lake stream conveyance by carriage may be had to a station on the Maine Central railroad, or a return can be made to Calais, and the train taken at St. Stephens across the river for McAdam junction on the C. P. R. R., from which point the train may be taken to either St. John or Bangor.

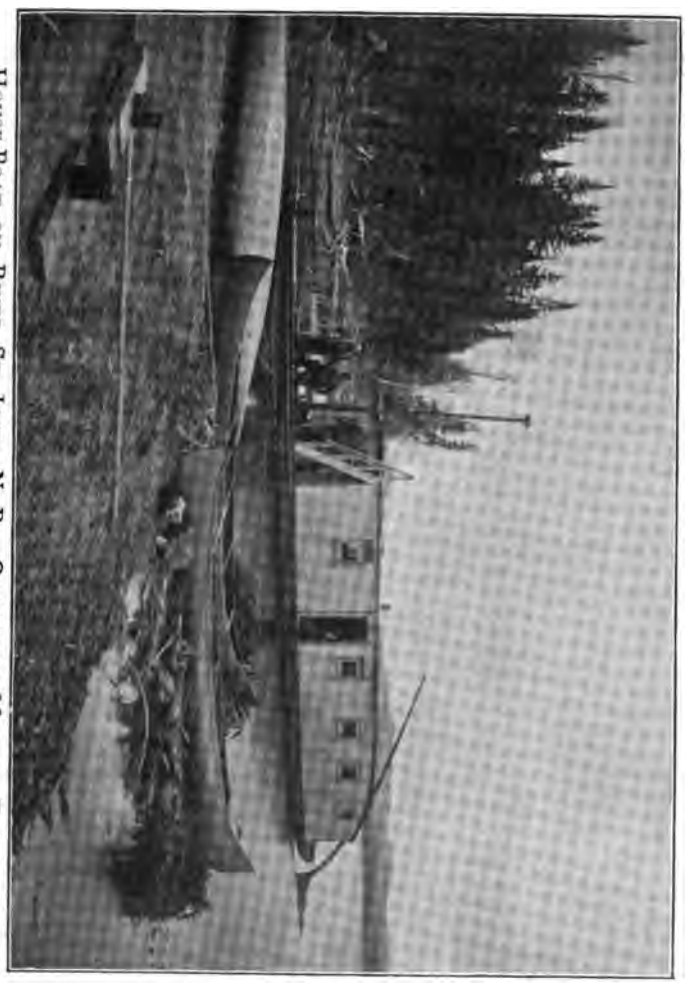
At Fredericton junction connection is made for Fredericton, from which place some of the most desirable points in the Province may be reached, and the sportsman has an almost unlimited field at his command. Rivers and lakes, without number, are passed by the C. P. R. R. in its northern passage through the wilderness, and all of them afford good fishing, and the forests surrounding them contain moose and other large game in abundance.

The new railroad from Fredericton to Chatham has also opened up a portion of the country that was before its construction quite difficult of access, and it has given anglers some very choice localities in which their recreation may be found. The number of streams and small lakes which the road passes is very great, and they all contain spotted trout and salmon.

Chatham (*via* Newcastle) is also reached by the Intercolonial railway from St. John. There are several points accessible from Chatham that are well worth the attention of the angler. The most celebrated of these is the Tabusintac river, twenty-two miles distant by stage. In this stream are found astonishing numbers of sea trout of great size, and, in the autumn, wild geese, brant and ducks assemble by thousands in the marshes and bay at the mouth of the river.



THREE DAYS' SPORT AT TABUSINTAC.



HOUSE-BOAT ON RIVER ST. JOHN, N. B. OWNED BY MESSRS. CARD AND EASTMAN, BOSTON.

Photo. by L. R. Howe.

CLUB-HOUSE AT METAPEDIA, P. Q.

From Newcastle, which lies across the river to Chatham, a drive of eight or ten miles brings the angler to some fine pools on the celebrated Miramichi river, in which free salmon and grilse fishing may be enjoyed, together with good sea-trout fishing in the proper season. The Big Sevogle and Little Sevogle rivers are also within easy reach, in both of which salmon and trout may be obtained.

There is an immense stretch of wild country here available, and various great river systems may be followed and connected by portages. But in order to accomplish this the angler should be prepared to "rough it," and he must, moreover, have guides who know the country thoroughly. These, however, are easily obtained at the Mic-Mac settlement at Red Bank on the river, a few miles from Newcastle, or may be secured through the services of the station agent.

The next important river on the Intercolonial line above the Miramichi is the Nepisiquit, which is reached from Bathurst, a town near its mouth. This is one of the choicest salmon rivers in the Province, and sea trout are also abundant in its waters. The fishing is not free, but permits may be obtained from the agent of the owners at Bathurst at a reasonable price, probably $2 or $2.50 per day.

There are many magnificent pools in this great stream, and good sport is to be obtained. The pool at Pabineau falls is one of the most celebrated, and that at the Grand falls is superb. The scenery on this river is in many places very fine, and at some points is picturesque in a high degree.

From Bathurst to Jacquet river there is no stream of much interest to the angler; the country is flat and desolate and covered with stunted pines and other small growth. In this section there are caribou in considerable numbers, but they are not hunted much except in the winter, when snow-shoes may be used.

Jacquet river is one of the finest sea-trout streams in the Province. Salmon are also taken in considerable numbers, but, as the stream is leased, the fishing is not free except for about two miles from its mouth. The best time to visit this river is in early June, when the smelts are running up the stream to spawn, where they are pursued by the trout for food. Sea trout of from three to five pounds in weight are often taken at this season, and they give great sport to the angler. Caribou are also found in the forests in the interior, and partridges are abundant.

The next important river on the line is the Metapedia; this, with its great tributaries, the Restigouche and Upsalquitch, are the most celebrated in the Province. Most of the water is leased, but fishing privileges may be obtained of some of the settlers who have not disposed of their rights.

At Campbellton good accommodations may be found, and fine sea-trout fishing is to be obtained near by. In the autumn prodigious num-

bers of wild geese and ducks congregate along the shore from Campbellton to below Dalhousie, on the south shore of the bay, and for many miles on the Quebec shore, where they feed on the roots of a species of marine grass, and become very fat, and of a delicious flavor. The writer has seen the shore for miles covered with the stalks of this grass — the roots having been eaten — in great rows that had been rolled up by the tides.

This locality is but little visited by sportsmen, and there is, consequently, a promising outlook for those who wish to test its capabilities. From the middle of October to near the end of November, or until freezing weather sets in, these birds are found in the greatest abundance. The Mic-Mac Indians, near Campbellton, are good guides and canoe-men.

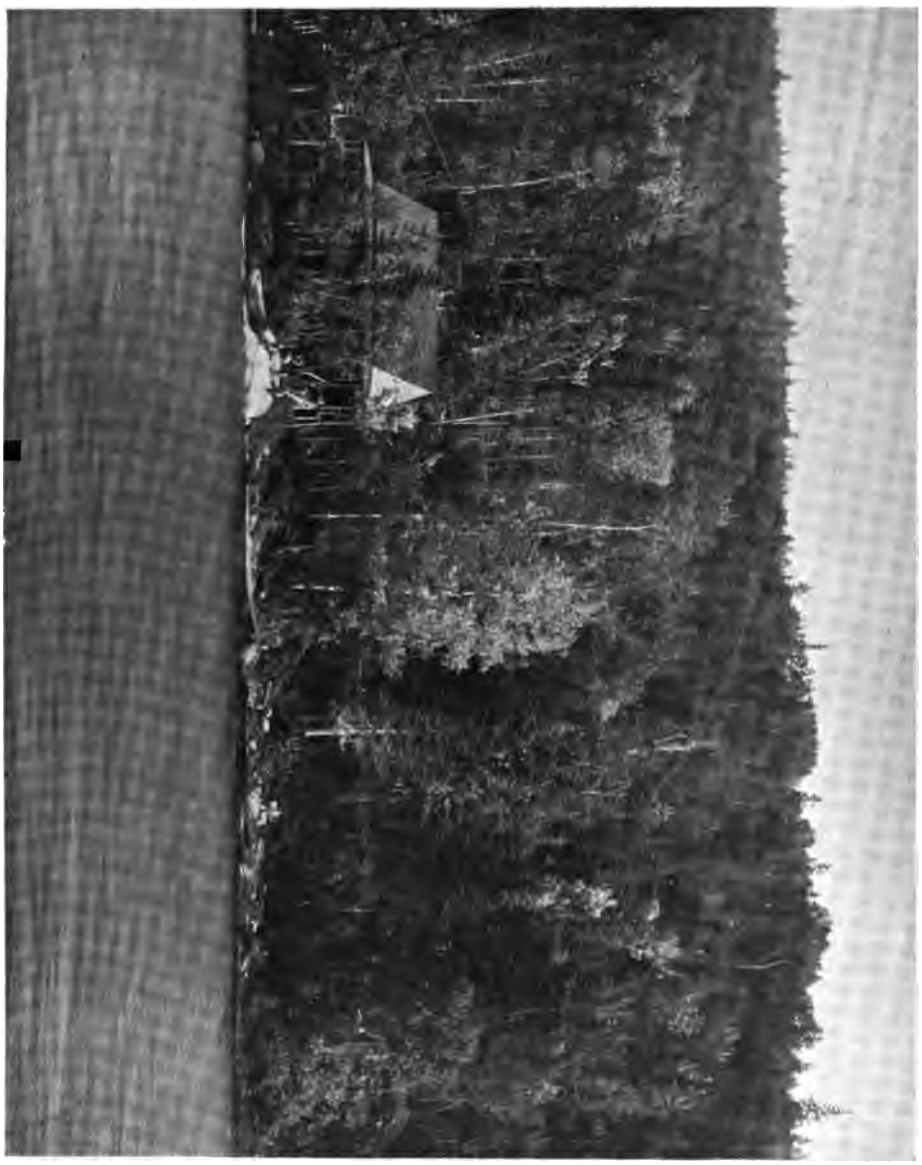
A number of fine rivers empty into the Bay-des-Chaleurs on the Quebec shore, some of which are free to anglers. The new railroad from Metapedia through this section renders these streams very accessible. The most celebrated among them is the Grand Cascapedia,— a magnificent river,— and the salmon taken from it are numerous and of great size. It has, until within late years, been reserved for the use of the governor-general.

The Little Cascapedia, Bonaventura and several other streams are, as a rule, free, and the sea trout taken from them are large and gamy. On one occasion, the writer in two days' fishing on the Little Cascapedia took seventy-six of these beautiful fish, whose average weight was nearly two pounds, and he has known of even a greater catch being made.

The Intercolonial railway from Metapedia to Quebec passes for many miles through a mountainous country in which the scenery is sometimes grand in the highest degree. It passes many streams and lakes which abound in fish, and large game is found in the forests. It is a wild country, and to explore it one must be prepared for very rough work.

Farther north civilization begins, and, as the St. Lawrence is approached, the country becomes thickly settled, and many towns of considerable size are passed. At the city of Quebec the tourist takes passage by sailing vessel or occasional steamer if his destination is one of the rivers along the northern shore of the St. Lawrence, or, if he desires, he can take the train on the Quebec & Lake St. John railway for Lake St. John, two hundred miles north of the city.

This line passes through a vast stretch of wilderness, in which are lakes and streams almost without number. Most of these lakes contain trout of great size and beauty, and very large catches have been made. So large are the trout in many of these rarely-fished waters, that specimens of from five to seven pounds' weight are sometimes taken. Lake Edward is the best known of these lakes, and it is much frequented by anglers; the size and numbers of its fish are, in consequence, decreasing, but good sport is still obtainable. Accommodations for the angler may be had near the station, and guides and boats are also provided.



JOE JEFFERSON'S CAMP ON THE CLEARWATER, N. B.

FORKS OF GREEN RIVER, N. B.

A writer, in describing the trout fishing in one of the Quebec lakes, says:

"The matinee of the thousands of woodland songsters awoke me before the sun had yet tipped the tallest pine of the highest mountains. Our Indian sat by the camp fire in the same attitude, with the same immobility of feature as when he dissolved into my dreams the previous night. '*Bon jour*, François,' I called, tumbling out from the blankets, 'any news this morning'?

"'*Bon jour, m'sieur — bon jour. Beaucoup de biccassine dans la vallie, m'sieur*,' pointing to a little swale hard by. Sure enough, he was right; for at least twenty couple of long bills were strutting around the boggy ground, boring for dear life into the succulent grasses for their *bon bouche*, the long red worm. They were wonderfully tame, and I have not unfrequently remarked that wild animals seem to know 'close time' as well as their persecutors, and that this natural but mistaken reliance on the fair play of man is the cause of the success of the pot-hunter. A regular sousing in the pellucid waters of a mountain brook hard by was followed by a half-tumbler of tansy whiskey, over which François made some diabolical leers as he engulphed his share; to splice my fly-rod and step into the canoe my Indian had launched was the work of a few minutes only, and then we paddled noiselessly out from the shadowy margin into the open lake. I stood up in the bow selecting my flies, but my eyes and thoughts wandered to the scene before me. The utter, profound solitude, the wild, rugged mountains covered with gigantic pine, except here and there where the naked precipice reflected the brilliant rays of the coming sun, the lighter tints of the maple, the feathery elegance of the silver birch, the stately limbs of the elm and beech, mingling with the sombre hues of the spruce and tamarack, the sweet, cool breath of the morning mists perfumed with the odor of wild flowers, and above all, the silent, unruffled peacefulness of the forest lake, the lonely canoe upon its bosom, and that relict of romance and savage life behind me, charmed up an ecstatic admiration of all this loveliness, no words can paint.

"To those alone who seek Nature in the sanctuary of her untrodden solitudes are such emotions known as stirred my heart, as I still stood tying on my flies. I had selected three flies, the compeers of which, after a multitude of years' experience, I have never or but rarely met. The trail was the 'Saturday night,'— orange and claret body (mohair), red and claret hackle, gold twist, wood-duck wing. The leader was the 'nettle' fly, of body dark yellowish-brown, bittern wing, same attennæ with the 'huntsman,' fiery-red body, green peacock hurl, drake wing and golden pheasant attennæ for a bob, or centre. Such a team it would be hard to beat. I directed the Indian towards a jutting point or headland round which the breeze sufficed to make a ripple enough to dance the flies. Not a fish was rising — but as we passed over the clear, transparent waters, I could see the

TROUT FISHING ON LAKE SEYMOUR, P. Q.

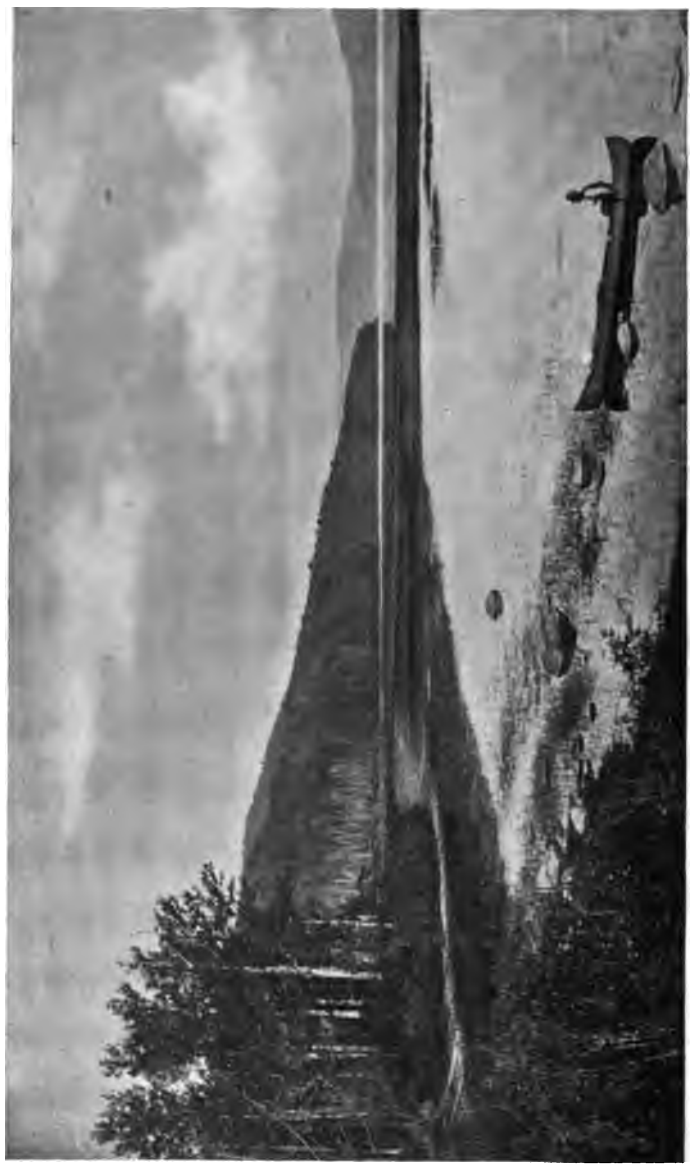
BON VOYAGE.

flashing of their silver sides as they darted from the canoe's path. The second cast I had an offer from a large fish; the third, two flies disappeared ere they touched the water, and my reel trilled to the strike that fastened my prey. After a scamper off with some hundred feet of line, I checked, which brought them bouncing out of water, shaking their heads with rage. Down they went like mad, but not over my line, as they would have it. They were not harmonious in action, and consequently hard to manage. Plunging violently for the canoe, before I had a chance to reel up or the Indian to swerve, they would have the tip of my bamboo tapping the butt,— then away, dancing a frantic gallop upon the surface of the water, splashing it into foam, followed by a terrific dive that made my line hum like a guitar string. My only chance to secure both, without waste of time, was for François to gaff the hind one, while I saved the other with my landing-net.

"So I wound up at the first opportunity of slacking, and giving butt gently led them toward the canoe. François, gaff in hand, with his eye to the spot where the tail fish was to appear, with nervous eagerness in every limb, was a picture in himself. Here they come, flashing their silver bellies as they roll over to the tightening haul. I saw the Indian strike, and, at that moment, shifting my rod to my left hand, lifted my fish into the canoe with the net, just as the Indian laid his well-gaffed trout with a "*sacre*," at my feet. A handsome brace of three-pound speckled beauties; it would be hardly possible to find their equals, either for form, brilliancy of color, or condition. A crack over the nose and into the creel they went; and here let me caution all fishermen whose eye this may meet. Invariably *kill* your fish as soon as they are caught, and upon no consideration allow them to dance to death, either in the basket, or worse yet, at the bottom of the boat. It not only prolongs torture, but it greatly deteriorates the culinary merits of the fish, the flesh becoming soft under the effect of gradual dissolution, and the richness of the flavor very much diminished.

"François now paddled at a moderate rate along the margin of the lake, some seventy or eighty feet from the shore, clear of rush or lily-pad— and I, standing in the bow, whipped as we went, with some fifty feet of line. This is, when neither canoe or paddle ruffle the surface of the water, the best and surest way of securing the large fish which frequent the shallows only at early dawn. I was amply rewarded — for when we reached the camp I had twenty-eight fine trout, averaging two pounds in weight — had stolen a march on my companions, who had scarce got the sleep out of their eyes, and had enjoyed the first hours of sunlight on the lake, in all the virgin glories of primeval nature, untainted by the conventionalisms of my every-day life, and without one harassing thought to disturb the peace and tranquility that suffused the whole."

At Lake St. John are found in June and July great numbers of the landlocked salmon, called the "ouananiche." These are caught with bait in



TEMISCOUATA LAKE, N. B.

May around the shore as soon as the ice breaks up, and later, are taken with the fly, principally at the outlet of the lake, called the "Grand Discharge." Here in the rapids and wild eddies the fish give great sport, and the angler who captures ten or a dozen in a day, feels well repaid for the long journey he has taken to get them.

There are also other points at which the ouananiche are taken with the fly, notably in some of the tributaries of the lake. The writer has been reasonably successful at a place called St. Felicienne, a dozen or more miles from Roberval, and there are other places quite as good, but not as accessible.

Near St. John, N. B., are several lakes and large ponds, in which good trout fishing is found. Among these Loch Lomond, Ben Lomond, and Taylor's lake are the best. They are reached by carriage from the city, and are a favorite resort with the citizens. Anglers also find in them land-locked salmon, called "salmon trout," or sometimes "grayling," but they are identically the same fish as those caught in the Schoodic lakes. Considerable numbers are also caught in the Folly lakes, on the railroad line between Truro and Halifax.

From St. John to Shediac there is nothing to greatly interest the sportsman or angler. The railroad passes through a number of good-sized towns, the most important of which is Moncton; but the country is level, and without special attractions for the tourist.

At Shediac there is, in June, some sea-trout fishing, and an occasional salmon is also taken, but the angler will hardly find it advisable to spend much time there. At Point-du-Chene, near Shediac, the train connects with one of the steamers which cross the Strait of Northumberland for Prince Edward island, landing at Summerside or Charlottetown. A few miles from Summerside, in the Dunk river, sea trout and a few salmon are taken. Within a few years the stream has been restocked with the last-named fish, of which it had become depleted, and it will probably soon become once more a valuable river.

The train from Summerside to Charlottetown passes a number of ponds and small streams, in some of which spotted trout are abundant. A most desirable point to reach is Malpeque, on the north shore of the island. The railroad runs to within a few miles of the place, and the journey is completed by private conveyance. At Malpeque one can obtain good accommodations at one of the farmhouses, and he will find in an outing there a most satisfactory share of sport. There is good sea-trout fishing near at hand, and spotted trout abound in some of the ponds and brooks in the neighborhood. Woodcock are found in the swamps, and the shore-bird shooting at about the 20th of August is unexcelled. Golden plover and black-breasted plover arrive sometimes in immense flocks, and the sportsman, lying in a pit dug in the sand, has over his decoys, opportunities for

making remarkable scores. Curlew are also pretty abundant, and a few brace of these splendid birds make a most satisfactory bag. The writer has killed quite a number of woodcock in turnip and mangold fields, from which they were flushed like so many snipe in a meadow.

In addition to the neighborhood of Malpeque, there are other desirable localities along the shore for plover-shooting, and near Tignish it is often very fine. Rustigo, near Grand Rustigo harbor, is a favorite place of summer resort, and there is good shooting and fishing in its neighborhood. In most of the bays and inlets of the island, sea trout are taken, sometimes in great numbers, the fishing being done with the fly, both from points on the shore, and from boats.

One writer (Perley) states that he took at St. Peter's bay, about twenty-eight miles from Charlottetown, in one morning, sixteen of these trout which weighed eighty pounds, an average of five pounds each! This, of course, was an exceptional catch, for the fish generally average considerably less in weight, but they afford splendid sport, no matter what their size may be.

So abundant are these trout sometimes, that they are seined and used as bait in the cod fisheries.

Prince Edward island, while boasting no very picturesque scenery, is well worth visiting. Its climate is very healthful and equable in summer; its soil is very productive, and its farmers prosperous. In many places the delicious Bedegue oysters are found on the shores, and may be had for the gathering; and lobsters and all kinds of sea fish are abundant. The mutton is particularly fine; added to all these, the great variety of game birds that

"Pine-Tree Pool," Dungarvon, N. B.

A SALMON POOL ON THE UPSALQUITCH RIVER, N. B.

may be obtained, and it can be seen that the epicurean delights that are available can hardly be excelled.

In returning to the States one has a choice between the Point-du-Chene route to St. John, and thence by steamer or rail; or, he may take the steamer at Charlottetown for Pictou (N. S.), and proceed *via* the Intercolonial railway to either Halifax or St. John.

VIEW ON THE UPSALQUITCH RIVER, N. B.

BENJAMIN C. CLARK, BOSTON.

Ex-President Massachusetts Fish and Game Protective Association.

CHAPTER XXVII.

Coot Shooting.

By BENJAMIN C. CLARK.

Fulica Americana, the common coot of the North America fauna, ordinarily called the mud-hen, is a fresh-water bird rarely shot at by hunters, as its flesh is dark and unpalatable.

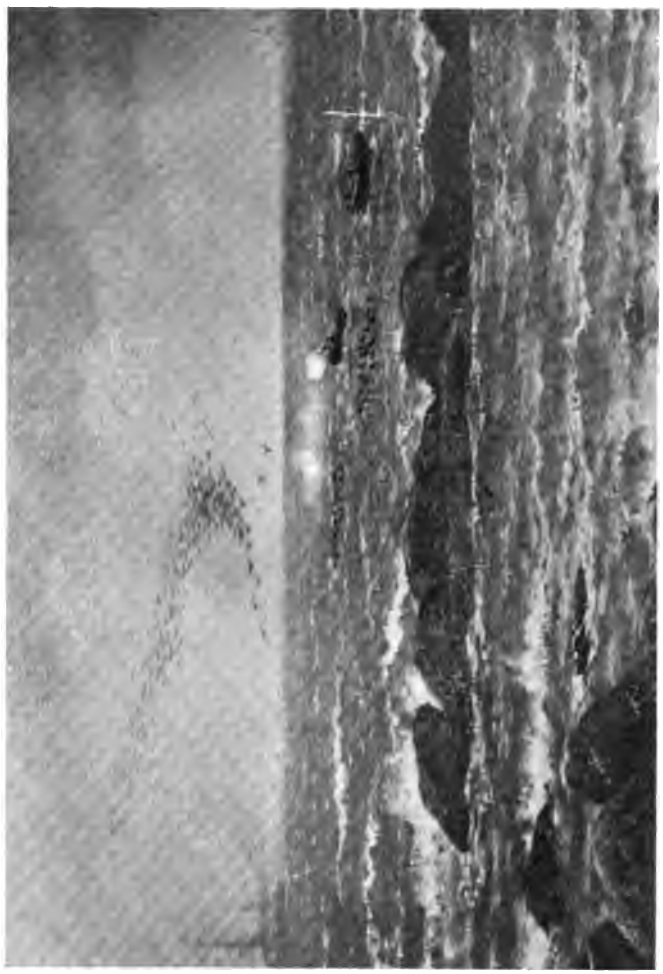
The birds generally known to fishermen, hunters and sportsmen in New England as "coots," and which are rarely, if ever, found on fresh-water ponds or streams, belong really to the family of ducks. They consist of the following three varieties:

1. Skunkhead. The surf-scoter. *Oidemia perspicillata.*
2. Butterbill. The American scoter. *Oidemia Americana.*
3. White-wing. The white-winged scoter. *Oidemia deglandi.*

It is not unusual to hear a larger number of varieties enumerated, but the so-called gray coot is the young of the butterbill or the skunkhead, and the gray white-wing is the female or the young of the white-winged scoter.

These birds breed in the Arctic regions, between the 50th and 60th parallels of latitude, and migrate, as a rule, in flocks, during the months of September, October and November. The old birds often precede their young by several weeks, but it is not infrequent in October to find them mixed in the flocks. Although many of these birds remain in Buzzard's bay and Long Island sound all winter, their flight ranges along our entire southern coast, as far even as the mouth of the Mississippi river. As these ducks feed almost exclusively in the open sea, their flesh is oily and strongly flavored; but they are in favor, especially the young birds, with those who have become accustomed to their taste, and there is but little difficulty in finding a ready market for them.

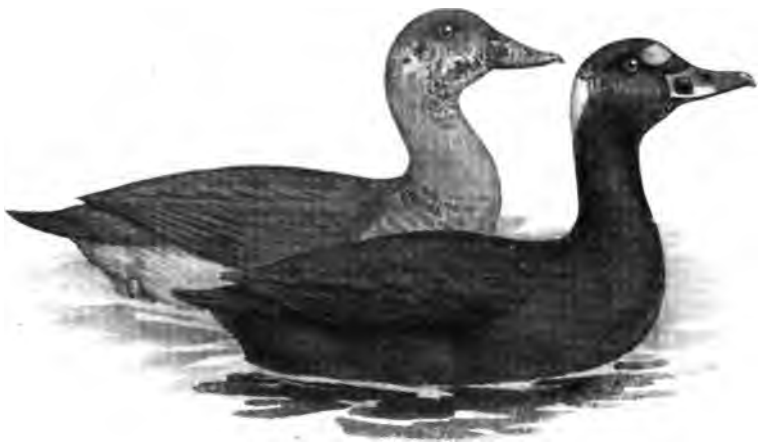
In rough weather the coots are apt to fly close to the water, to avoid the strong wind, but when it is calm they fly high in the air, out of gunshot. Frequently, sportsmen, by shouting loudly, or firing a gun, will alarm them by the unusual noise, so that they will suspend the movement of their wings, and scale down rapidly towards the water, thus coming within shot. This habit is believed to be peculiar to the white-wings.



FROM A PICTURE ENTITLED "COOTING AT COHASSET IN A NORTHEASTER."

Painted for B. C. Clark, in 1872, by the Eminent Marine Artist, J. E. C. Peterson.

It is doubtful whether the original natives of Massachusetts or Maine hunted these birds at all. It is but natural to suppose that with the great abundance of other and better birds, which, no doubt, existed in those days, they cared little for these less desirable ducks. In the early part of the present century, however, we know that there began to be manifested an interest in securing them, but the shooting at first was done as the birds passed over, and decoys were not used. About fifty years ago, the first rude decoy, which consisted of the skin of a coot drawn over a lobster buoy, was contrived, and from that time, decoys have gradually become more artistic and attractive. Old squaw decoys are fashioned so as to deceive the birds perfectly, and sheldrake decoys are made, even with the imitation of the tuft on the head by means of horsehair.



SKUNKHEAD COOT.

With the change of the old muzzle-loader, which was inconvenient and slow in many ways, to the modern, handy and safer breech-loader, the sportsman acquired greater facilities than he formerly possessed for rapid firing, especially useful in the pursuit of wounded birds. Guns are now used which discharge six consecutive shots without reloading. On the other hand, the birds themselves have so changed their habits that man's advantage has been more than overcome. With the great increase in houses along our coast the birds have become more wary, and the constant increase of sportsmen all along our shores has taught them each year to migrate in a more direct course, and they do not now follow the bays and indentations as they did formerly. The late Mr. O. A. Taft, of Point Shirley fame, in the year he opened his hotel (in 1848,) shot hundreds of coots as they passed through the channel between Point Shirley and Deer island, but at the present day it is not likely that any birds pass through there. The

birds in heavy northeasters are driven in on the south shore from Boston Light to Plymouth, and afford at such times good shooting, but in ordinary weather they pass several miles off shore, and even directly from Cape Ann to Cape Cod. They have become so accustomed to the decoys that the older birds on approaching them will turn out to sea and give them the widest possible berth. A wounded coot is a difficult bird to secure, especially if he happens to be a sagacious black white-wing. Often he will submerge all of his body, leaving only his bill out of the water, and sometimes will dive, keeping hold of the kelp on the bottom, and drown in that position. Many coots disappear entirely and are never seen again, being seized by seals or by the goose-fish. Sometimes a coot will be picked up and placed in the boat, apparently dead, and subsequently revive and jump from the boat, never being seen again. Assuming that coots fly at an average rate of sixty miles an hour, and loons at one hundred miles an hour, it is easy to imagine the force with which they will strike any object they encounter in their fall and the short time it will take for them to reach it. On one occasion the stern of a new boat was broken out by the fall of a loon, and it is remarkable that serious accidents do not more often result from this cause.

BUTTERBILL COOT.

The enthusiastic sportsman who would hunt coots must be an early riser, and if his decoys are in place half an hour before sunrise, he is likely to have some of the best shots of the day. If the wind is from a favorable quarter, the birds commence their flight as soon as they can see. Thirty or forty decoys in strings of six or seven each are ample, and there is an opportunity for skill in their arrangement. The boats are from twelve to fifteen feet in length, and they must be good sea boats. If the sportsman keeps an account of the number of shells he fires, he will find that the percentage of birds actually bagged will be less than might be supposed.

Probably forty coots to one hundred shells will be more than the average shot will secure. As a matter of curiosity, the following list of birds other than coots is given, which have been killed at Cohasset, twenty miles from Boston. Old squaws, sheldrakes, shovellers, black ducks, red-heads, black-heads, baldpates, gadwalls, pintails, green-winged teal, blue-winged teal, wood-ducks, harlequin ducks, brant, Canada geese, eider ducks, whistlers, buffleheads, mallards, ruddy ducks, loons, grebes, auks, guillemots, and other more or less desirable seafowl. In strong winds, boats are sometimes anchored under the lee of ledges and small islands, and the birds are much more easily decoyed under such circumstances, while the sportsman has the great advantage of shooting in smooth water, and the birds are much more likely to alight among the decoys. At times this is the only way in which the fowl can be shot, as it frequently happens that the sea is too rough for the boats in the open water. If the hunter is too adventurous in this respect, he may suffer great discomfort and run great risks, as drowning accidents are by no means uncommon. With good judgment, however, and reasonable care, these risks may be reduced to a minimum, and the sportsman live to a good old age like Harvey Whitcomb, of Scituate, of whom it is related that he went out on his ninetieth birthday and shot a pair of white-wings. Certainly there is no sport in the world better calculated to impart vigor and health than this.

WHITE-WINGED COOT.

The result of a day's sport in shooting coots is a most uncertain quantity. There may be a large flight of birds with very little good shooting, while, on the other hand, there may be few birds but they may decoy well. Much depends upon the state of the tide, the direction and force of the wind, and the condition of the atmosphere. At Cohasset, the largest

Noah Curtis.

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CHAPTER XXVIII.

Reminiscences of Camp Life and Wild-Fowl Shooting at Currituck in the Sixties and Early Seventies.

BY NOAH CURTIS.

Plans and preparations for our annual hunting season, which occurred during the months of November and December, were always carefully made during almost all the remaining months of the year.

Our club, The Monkey Island Shooting Club, consisted of John T. Dizer of Weymouth, Judge Francis Tufts of Somerville, Solon Humphries of New York, and the writer, and we were subsequently joined by C. P. Keeler of Boston, and the late Benj. F. Ricker of Brighton.

Monkey island is situated in the middle of Currituck sound, and was, at that time, covered with a fine growth of large bay trees. It is the highest land in that section for many miles inland. Our camp was well planned for comfort and convenience, and the absolute rest and fine sport we enjoyed there have left upon my mind the most pleasant memories of my life. Our preserve consisted of many hundreds of acres of marsh lands and nearly a dozen islands which were situated at every point of the compass within several miles of our island home.

Our shooting was all done on the wing, over decoys from blinds built of reeds on the natural points of land. Our camp consisted of several buildings, which were sheltered among the bay trees, and a long boat-house which we used for keeping our game cool. It had an observation tower from which we kept constant watch of the fowl and in which our plans were made and movements arranged for each day's shooting. The routine of our operations was almost the same daily. We arose at four in the morning, partook of a mixture of lavender, and then a royal breakfast, and these were followed by a smoke with our Powhatans (pipes). We then went to our observation tower, noted the weather, and had a consultation in relation to the best gunning points. Our boatmen had everything in readiness to start for our blinds, which were usually reached by the first dawn of day. We usually returned to the club-house before dusk and

regaled ourselves with a mixture of hot water, butter, spice, and "Old Lawrence of '58" which put us in a happy mood, and made our small party "a mutual admiration society." We then had a dinner to which the *cuisine* of our noted clubs or hotels "ain't in it," in comparison, for our larder was filled with terrapin, "Lynn Haven bays," fresh fish, wild fowl of all kinds, winter yellow-legs and English snipe.

To our dinner was added several choice bottles, and after it had been enjoyed we had our social chat in which the incidents and sport of the day were discussed; then, with the tea-kettle singing, we had three rubbers for the choice of mixture, and our Scotch with lemon attachment was enjoyed, and by eight o'clock we were in our beds and were lulled to sleep by the different notes of the thousands of ducks, geese and swan which surrounded our island. Our club preserves, in the years from 1860 to 1880, were noted as a famous resort for the canvas-back duck, as will be seen by the following score of game killed during twenty-three consecutive days, the last of November and the first of December in 1875, this score having been published in *Forest and Stream* of that year. The members present at that time were: Messrs. Keeler, Tufts, B. F. Ricker, and the writer. The total of the score was 1,489 ducks, 881 of which were canvas-backs, 21 geese and 8 swans.

The best individual scores during this period were: Nov. 8, by Mr. C. P. Keeler, 98 ducks, 70 of which were canvas-backs, and 2 geese; Nov. 26, by Mr. Ricker, 100 ducks, 79 of which were canvas-backs; Nov. 30, by the writer, 95 ducks, 71 of which were canvas-backs, and 1 swan.

The following is the complete score:

	DUCKS.		SCORE.		
DATE.	Canvas-Backs.	Other Varieties.	Geese.	Swan.	Number of Blinds.
Nov. 6		102			2
8	70	30	2		1
9		44		1	2
10	33	23			1
11		11	1		1
*12					
13	15	22	2		1
15	42	33		1	1
*16					
17	24	66	2		2
18	2	17		1	1
19	72	20	4	3	2
20	50	16	3		2
22	103	24			2
23	92	37	1		2
24	59	19	1		2

Date.	DUCKS. Canvas-Backs.	Other Varieties.	SCORE. Geese.	Swan.	Number of Blinds.
Nov. *25					
26	107	28	2		2
27	7	6			1
29	23	16	1		1
30	115	37		1	2
Dec. 1	12	5			1
2	16	8			1
3	7	9			2
4	14	2			1
6		33	2	1	2
Totals	863	608	21	8	

* Denotes rainy days; no shooting done.

Eighteen canvas-backs were shot on the club island in addition to the above during the stated time, making a grand total of 881 canvas-backs.

The other varieties of ducks included in our score were mostly pin-tails, mallards, black ducks, baldpates and teals.

These incidents of our daily life, and our annual scores, were enjoyed during the twelve years I have mentioned, and one can imagine the royal sport we had, and can appreciate the many pleasant memories which throng back to me. Those days of camp life were happy ones, indeed, and I hold in loving remembrance not only them, but also the companions who enjoyed them with me.

CHAPTER XXIX.

Popular Breeds of Dogs.

NOT every person is a dog fancier, but almost everyone has a fancy for some especial breed; the stately mastiff, the great Dane, the terrier, setter, pointer or spaniel each has its admirers, to whom the other varieties, as a rule, offer less attractions. While dogs, as a class, have certain attributes in common, such as fidelity and affection for their masters, they have in the different breeds as a result of persistent education, cultivation and breeding, fixed peculiarities of character and habit which render each variety valuable for the special purposes for which it is desired.

The sportsman in going forth in quest of partridges and woodcock has as his companion his high-bred setter or pointer; the fox-hound or bull-dog would be of no value to him; and the farmer, to guard his flocks of sheep, employs the intelligent collie rather than the destructive hound.

Each breed, therefore, has its particular characteristics and is valuable each in a certain sphere and for a special purpose.

Of the modern breeds of dogs the setters are among the most highly improved types; their intelligence is such that they are capable of receiving an education and training that can be excelled by few other varieties, and they have been bred so long and carefully that their characteristics have become permanently fixed.

There are now three breeds of setters — the English, Scottish or Gordon, and the Irish — and they are all so popular that it would be difficult to state which has the most admirers. The English setter is one of the oldest of breeds, mention of it having been made as far back as the close of the 17th century. It, undoubtedly, originated as a cross between the pointer and spaniel, and has retained many of the peculiarities of both. The modern high-bred English setter is a beautiful animal, one of the most handsomely formed and most graceful of dogs.

Its coat is fine and silky, and its predominating color is pure white, which is broken more or less with spots and patches, of orange, lemon or

black. One of the most perfect specimens of this beautiful breed is illustrated elsewhere in this volume.

The origin of the Irish setter is more obscure than that of the others, there being no authentic records concerning it prior to the beginning of the present century. Its form is not so graceful as that of the English setter, and its head is more slender and its legs longer. Its color is a brownish or yellowish red.

The Gordon setter is a much more recent breed, it having been established by the Duke of Gordon about 1820. It is said that the collie was originally used in the crossing, and some of its peculiarities have not yet entirely disappeared. The Gordon is heavier in the head and body than the English setter, its stern is somewhat shorter, and the texture of its coat is not quite so fine; but it is a handsome animal, its color being a deep black and a rich mahogany tan.

The setters, like the pointers, are distinguished for their propensity of pausing when game is scented before flushing it. This peculiarity has, by breeding and education, been developed to such a degree that staunch dogs will set or point at a bird for a long time without moving. The writer had an English setter that stood on one occasion, like a statue, for over half an hour, and has heard of others that were even more staunch.

This habit is now so well developed that the puppy will point or rather set game almost as soon as it can run, or on the first occasion of its finding the scent.

The English setter is a rapid worker, ranges well, and is, generally, tractable and steadfast. The Gordon is, as a rule, slower in his movements, although he is at times very nervous and ambitious. In scenting game he equals the other, but his endurance is less.

The Irish setter is quick in action — sometimes too quick — and a great ranger, his powers of endurance being very great. He is not as tractable as are the others, being often headstrong and wilful, but if well trained and kept in training, he is a valuable dog, particularly in difficult coverts, where slower working dogs would "potter."

The modern pointer is the outcome of many crosses and of long-continued, careful and systematic breeding. Its progenitor, the Spanish pointer, which was imported into England from Spain about the year 1600, was a heavily-framed, coarse-boned, loosely-made dog, cautious and slow in its movements, possessed of a wonderful sense of scent, and staunch and tractable in a remarkable degree.

It was well adapted to the needs of those times, for until the sporting gun was introduced, and the habit was acquired of shooting on the wing, a dog was wanted solely to find the game, set or point it, and then remain quiet until the nets were drawn and the birds secured, that being the method by which game was then captured. But with the advent of the

score in a day, by one man alone in a boat, is sixty-one, and for two men, eighty-five. At the Cape two hundred and fifty have been shot before noon by one man, but these were what are known as "bedded fowl," that is, birds not on their flight, but temporarily resident, and feeding in a certain locality, to which they will continue to return when driven off. The proper charge of powder and shot for the birds varies with individual judgment. The writer considers that with a No. 10 gauge gun, a most effective charge is five drams of powder and one and one-fourth ounces of No. 5 shot. It is a good plan, however, to have cartridges loaded with larger sized shot, which can readily replace those already in the gun if occasion requires. In six seconds cartridges can be removed and others substituted.

I cannot conclude this short sketch in any better way than by quoting William Cullen Bryant's beautiful poem, entitled:

TO A WATER FOWL.

WHITHER, 'midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
Thy solitary way!

Vainly the fowler's eye
Might mark thy distant flight to do thee wrong,
As, darkly painted on the crimson sky,
Thy figure floats along.

Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
On the chafed ocean side?

There is a power whose care
Teaches thy way along that pathless coast,
The desert and illimitable air,—
Lone wandering, but not lost.

All day thy wings have fanned,
At that far height, the cold, thin atmosphere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near.

And soon that toil shall end;
Soon shalt though find a summer home, and rest,
And scream among thy fellows; reeds shall bend,
Soon o'er thy sheltered nest.

Thou'rt gone, the abyss of heaven
Hath swallowed up thy form; yet on my heart
Deeply hath sunk the lesson thou hast given,
And shall not soon depart:

He who, from zone to zone,
Guides through the boundless sky thy certain flight,
In the long way that I must tread alone,
Will lead my steps aright.

Noah Curtis.

reason for believing, as with the staghound, that he is the old southern hound crossed with the greyhound, with, perhaps, a dash of the bull-dog; but here, again, all is conjecture, and we can only guess at his origin from his form and peculiarities. The popularity of the foxhound in this country is rapidly growing, and, as before stated, the sport of fox-hunting has come here to stay.

We have two distinct varieties of this dog, the fast Kentucky and the slower New England breed, both of which have a true representation in our kennels.

The beagle, celebrated as the most diminutive of hounds, is fast becoming one of the leading favorites among fanciers, and it has long occupied a high position in the estimation of sportsmen. It is used in packs in rabbit-hunting in England, in the same manner that the larger hounds are employed in the pursuit of the fox, and to a certain class its work possesses very great attractions.

Its scenting power is one of the most exquisite of all dogs, the faintest clew being followed up most unerringly, and the packs run so well together that a sheet may sometimes cover them, while their speed is so moderate that the most ordinary pedestrian may keep up with them.

The beagle is not used with the gun at all, for it is a hound *pure et simple;* a small working model, it is true, but one that moves with the same action as that of its larger relatives, and with the same bay or call, although in a more subdued key. It is said that a pack of six couples, not more than ten inches in height, will run down a rabbit under ordinary conditions, in seven minutes, and even on a cold, bad-scenting day, will never lose the track.

An English writer, in describing some of the peculiarities of the beagle, says: "They are the smallest of the hound race used in this country, are exquisite in their scent of the hare, and indefatigably viligant in their pursuit of it. Their slow kind of hunting is admirably adapted to age and the feminine gender. It can be enjoyed by ladies of the greatest timidity, as well as gentlemen laboring under infirmity, to both of whom it is a consolation that if they are occasionally a little way behind there is barely a possibility of their being thrown out. A pack of this description is perfectly accommodating to the neighboring rustics, who find it a matter of no great difficulty to be well up with them on foot."

It is to be remembered that the beagle is not the same dog as the so-called harrier, which is considerably larger and different in a number of ways, although the two dogs possess precisely the same hunting properties and are hunted in the same coverts and under similar conditions; the harriers being more speedy, however, than the others.

Although the pedigree of the Dachschunde, or badger dog, as it is often called, is undoubtedly a long one, the figure of a dog resembling it

having been found on the monument of Thothmes III., who reigned over Egypt more than 2000 years B. C., and the figure of a breed of similiar appearance having been discovered on early Assyrian sculpture, the species has come to popular notice in this country only within a comparatively short time. Its quaint shape and peculiar appearance always attracts attention, and its general good qualities are rapidly bringing it into prominence.

In Europe it is used to hunt deer, foxes, and the badger, principally, however, with the two former, by taking up and following faint scents, and is much prized in the pursuit of wounded game.

It is also often employed to drive badgers and foxes from their dens, and, if occasion requires, it shows great pluck and persistency.

To show the courage of this curious little hound, a writer states that he had one of only fifteen pounds' weight turn a hedgehog out of a drain, and grip the plucky ball, heedless of the spikes, and crush it with as much seeming ease as a terrier does a rat.

The Dachschunde possesses extraordinary scenting powers, and it has been trained to quarter the ground like a pointer, work the game to the gun if it be possible, and even has been known to retrieve birds that had been shot. It is never quarrelsome, and it rarely begins a fight, but if attacked by a larger dog it never hangs back, and as it generally fights low, working among its adversary's legs and throat, it generally comes out victorious.

In England, while it is used largely in the field, it is a favorite house dog, and on account of its cleanliness and affectionate disposition, is often a pet with the ladies.

The English fanciers require that the dog shall be of about twenty pounds in weight, from eight and a half to ten inches in height and from thirty-six to thirty-eight inches in length, and the American standard demands a long, low and graceful form, with a skin thick, loose, supple, and in great quantity, the coat to be dense, short and strong and of any color, although much white is objectionable.

Until only a few years ago the Clumber spaniel was almost unknown in this country; in fact, in consequence of the difficulty of obtaining specimens from the Dukes of Newcastle, by whom the breed has been owned for generations, it has, until recently, been a rarely-seen breed, even in England.

So exclusively has it been retained in only the highest families, that it is termed by many the aristocrat among dogs, and when any could be obtained they were highly treasured.

Of the origin of the breed but little is known ; the first of the Newcastle stock was imported from France, from the kennels of the Duc de Noailles,

but it is stated that the French strain came originally from Spain, where the breed had existed as far back as the 14th century.

The Clumber is one of the most intelligent of dogs, and can be taught to do almost anything.

It is, when hunting, used in teams of several, and is employed in the thickest coverts, where setters and pointers are not so desirable, and for such use it is unsurpassed by any breed. It beats the ground thoroughly, and hunts silently, giving no tongue when game is found, on which account it is frequently worked with a bell attached to its collar, in order that the sportsman may more readily tell its whereabouts.

It has been frequently taught to retrieve game, even from the water, and for a sportsman who wants, instead of a ranging setter or pointer, for woodcock or partridge shooting, a careful, slow-moving dog, it is a desirable species.

It has been stated — with how much truth the writer cannot say — that though its passion for the gun is very great, it cares but little for its master without that accompaniment. If that is the case, it will not be a great favorite as a house and pet dog, notwithstanding its neat appearance and somewhat dainty habits.

It is a long-bodied, short-legged species, and heavy in its frame, its weight ranging from fifty-five to sixty-five pounds in males, and from forty-five to fifty-five in the females. Its coat is long, abundant, soft and straight.

The wonderful intelligence of the collie, or sheep dog, has been a prolific theme for writers for many years. This intelligence has been developed not by a long and careful training, conducted on stated and set rules, but is owing rather to its long and close association with the life of the shepherd and the companionship from puppyhood up with the animals which it has learned to watch and guard. The inherited habits of generations also have their influence and predispose the dog to the performance of the duties required of him.

The modern collie of fanciers is different from the animal that is used as a sheep dog in Scotland, being bred with a longer and more abundant coat, which in the deep snows and heavy mists and rain storms of the mountains would be a serious detriment to its successful work.

It is generally of a shy, reserved disposition, and slow to make friends with strangers. It rarely allows any liberties to be taken with it, and is always suspicious of any advances that are made, being, on that account, an excellent watch-dog, but one that is sometimes too demonstrative and aggressive. It is always obedient to the command or gesture of its master, and is faithful and affectionate to a remarkable degree. A collie that belonged to the family of the writer displayed considerable talent as a bird

dog. His scent was keen, and for partridges and squirrels he was quite useful. He never pointed, of course, but when game was found, an excited bark announced the fact.

It has been stated that the modern collie owes much of its black-and-tan coloration to an infusion of Gordon setter blood, the old-fashioned, bob-tailed sheep dog being of quite a different style.

The standard for the collie adopted by American breeders demands a lithe, active dog, presenting an elegant and pleasing outline, and exhibiting strength, speed and intelligence. The body should be rather long, tail moderately long, carried low when quiet, gaily when excited, and almost straight when running.

An important point is the coat, which should be abundant, except on the head and legs, the outer coat harsh, the inner soft and furry and very close. Color, immaterial; size, males, 21 to 24 inches; females, 2 inches less. Weight, males, 45 to 60 pounds; females, 40 to 50 pounds.

Another very intelligent dog, and one capable of a high degree of education, is the poodle, of which there are several varieties.

As a trick dog, this animal is well known, his public performances being sometimes very remarkable. There was, a number of years ago, a dog of this breed that fairly astonished Paris by his wonderful card and arithmetical tricks, and in this country poodles are not rare which will go through evolutions with the gun at command, and perform many other acts that display an intelligence almost marvellous.

In Europe, the poodle has been much used as a sportsman's dog, his keen scent, intelligence and tractability, rendering him a favorite. He ranges well, and rarely misses game, but has never been taught to point, always rushing in and flushing the birds. As a retriever, however, either on land or in the water, he is highly valued.

His great docility makes him desirable as a house dog, and he is always good-natured and ready for a frolic. Although his disposition is very affectionate, he is a jealous animal and extremely sensitive to neglect or ill-treatment. Among fanciers the corded poodle is growing in popularity, its quaint, singular appearance making it an attraction at exhibitions. Its jacket resembles lengths of twisted cords or rope, which hang down and sometime trail on the ground.

On account of the great thickness and weight of the coat of the curly-haired poodle, it is customary to shave the body of the dog in hot weather, leaving the shoulders and a few other parts untouched. The odd look of the animal is thus increased, and sometimes he presents a very comical appearance. The corded poodle, however, is rarely sheared.

The mastiff has long been celebrated as one of the most courageous and powerful of dogs, and as a consequence has always been prized as a guardian of house and property.

It probably originated in England, although reference is frequently made by the early classic writers to a dog called the "Molossus," which existed in Greece, whose characteristics were so similar to those of the English species that they might be considered almost identical.

By many of the earlier English writers the two breeds, mastiff and bull-dog, were confounded, and considerable confusion regarding the identity of each exists on that account.

In the 14th century, however, they were described as two different varieties, Edmund de Langley, the "Mayster of Game," calling them the "Molossus" and the "Alaunt," and stating that the former, *i. e.*, the mastiff, was used for the guardianship of persons and property, while the other, which was described as a short-headed dog, pugnacious, and gifted with an inclination to hang on to anything attacked by it, was used for baiting the bull. The breeds that were thus separated seemed to have again become somewhat mixed, for Dr. Caius, physician to Queen Elizabeth, in his work published about A. D. 1570, describes but one dog of a similar kind, which he calls the "Mastive," or "Bandogge." His description is in part as follows: "An huge dogge, stubborne, eager, burthenous of body and therefore of but little swiftness; terrible and fearful to behold and more fearse and fell than any Arcadian cur."

Whether Dr. Caius carelessly or ignorantly omitted to mention the bull-dog there is no means of proving, but there seems sufficient evidence to show that there were two distinct varieties, descended possibly from a remote common ancestor, but each with characteristics sufficiently marked to easily distinguish it.

The modern mastiff is, of course, an entirely different animal from the ancient Molossus, and it shows in an abundant measure the thoughtful, careful work that intelligent breeders are accomplishing.

As a watch-dog the mastiff is held in high estimation generally, but its value as a companion to man, of course, largely depends upon its temperament; for, while a well-trained, good-dispositioned animal may be taken anywhere and is as trustworthy as any other species, a savage mastiff is an exceedingly dangerous brute, and should never be allowed to run at large.

In the English, *Points of the mastiff*, is found the following:

"General appearance, size and symmetry. In this we have to consider the special duties of the mastiff in the present day. He is no longer a savage kept to bait the 'bull and the bear' as history informs us he was; nor the mere drudge of the butcher, to keep his wild and doomed cattle in the shambles, and fight for him when required; nor even the mere chained slave — the ban-dog of the country house — whose bay, however welcome to those who approach near home, must have had an awful sameness in it

to the poor brute who, night after night, month by month, and year after year, listened to the echoes of his own dismal howl as he bayed the moon, or hoarsely barked warning and defiance to all who approached with predatory aim.

"Now, although there are still enough of the ban-dog sort, who are by their owners called 'mastiffs,' and may, no doubt, lay claim to possession of a fair portion of mastiff blood, they are impure, and suffer so from the cruelty of close confinement that they lose even the characteristics of the breed, which a kinder and more judicious treatment would develop, both in physical proportion and dignity of manner, and which are essential features of a mastiff of the present day."

The mastiff has always been the special guard of man's person and property; and the qualities demanded to fill that position of trust are: Size, to impress with fear, the symmetry of well-proportioned parts evidencing a combination of strength and activity; a disposition watchful and keen, but confident in its own strength; dignified and calm, save the warning bark, which fills every echo within its reach with its full tones, so unlike the yelping of the noisy cur.

The American standard provides that the mastiff shall have a "large, massive, powerful, symmetrical and well-knit frame"; the coat, "short and close-lying, but not too fine over the shoulders, neck and back," and the color "apricot or silver fawn, or dark fawn-brindle. In any case, the muzzle, ears and nose should be black."

Although one of the largest and most powerful of dogs, and one possessed of undaunted courage, the Great Dane is noted for its tractable nature and peaceful disposition.

It has been known for many generations by various names, such as the German boarhound, Russian wolfhound and Ulmer dog, and some writers have expressed the opinion that it is identical with the old Irish wolf dog, one of the most gigantic species ever known.

Astonishing stories are told of the great size that these animals have attained, but probably most of the accounts must be received with caution. Dogs thirty-six or thirty-seven inches in height are giants indeed, but when we are told that some of these animals, which had been admitted to a banquet, could look over the heads of the guests who were seated at the tables, we must believe that the descriptions were overdrawn.

The modern dog rarely attains a height exceeding thirty inches, and that is the standard that has been adopted by fanciers.

The great Dane was used in early times as a destroyer of wolves, its immense muscular power and the great strength of its jaw rendering it a quick conqueror of those savage animals. It is not now employed in the chase, or for any hunting purposes, its scenting powers being but poorly

developed, but as a house dog and carriage attendant, combining the requisite qualities of docility, courage and dignity, added to a grand figure, bold muscular action and elegant bearing, it is much admired in Europe, and is also attracting considerable attention in this country.

It is used on the stage in dramas in which bloodhounds are required, the Dane personating the less handsome and tractable species, and in such a *rôle* it is well known to those who frequent the theatres. While the Dane will rarely initiate a fight, he seldom shuns one, and unlucky is the dog that is seized in his powerful jaws, for huge mastiffs have been obliged to succumb to his onslaught, and smaller dogs are quickly shaken to death.

The color of the great Dane is of various shades of gray, red, black, pure white or white, with patches of the other colors, and the coat of hair is very short, hard and close. The standard minimum height for male is thirty inches; for females, twenty-eight inches; weight of former, 120 pounds, and the latter, 100 pounds.

There are few breeds of dogs that compare in the popular estimation with the grand and stately St. Bernard. His gentle and magnanimous disposition and the benevolent work in which he has for centuries been engaged, have endeared him to every one, and he is always received with a warm welcome and kindly greeting by those whom he approaches. The stories that have been told of his wonderful intelligence in rescuing benighted or storm-lost travelers in the Alps are numberless, and they have surrounded him with a halo in the popular mind that can never be dispelled.

The training of the St. Bernard is carried on by the hospice monks in the most careful and systematic manner. Every animal is taught to familiarize himself with the various paths, and visit the different cabins of refuge, and if travelers are found who have sought shelter in them, they are led by the dogs at once to the hospice.

The history of this famous breed is, like that of many others, very obscure. As early as 962 the St. Bernard was employed at the hospice on Mount Joux, and at that on the road that led over the Grison Alps at Colonne Jou; but there seems to be no authentic record of the origin of the race.

According to a tradition among the monks of these "hospitia" the dog was first produced by crossing the Danish bull dog with a mastiff (or shepherd's dog of the Pyrenees), the progeny obtaining its great size and strength from the former, and from the latter the intelligence, the exquisite sense of smell and the faithfulness and sagacity with which it is endowed. This is probably the correct story of the origin of the famous breed. The modern long-haired breed, however, differs from the original considerably.

Owing to terrible storms in 1812 and the great number of requisitions that were made on the dogs, it became necessary to employ the females,

which it had been the custom to use only at the last extremity. The rigors of the weather were such, and the exposures of the animals so great that they all perished. There was a sufficient number of males left, and to keep up the breed they were mated with Newfoundlands, but the progeny having long hair became so burdened with snow that they were of no value whatever, and it was only by crossing the original males with the mongrels that the short, stubby hair was restored.

The rough-coated St. Bernard, then, is distinct from that employed at the hospices, but it is a beautiful dog, and deservedly a great favorite. It is recognized by English fanciers as well as by American, and at the exhibitions, equal prizes are offered for the rough and smooth-coated dogs. The standard fixed for this breed is: "General appearance — large and powerful, with great muscular development, suggesting endurance. Size — dog, at least thirty inches at shoulder, bitch, twenty-seven inches. Coat — in the long-coated variety, should be dense and flat, rather full about neck, thighs feathered; in short-coated dogs, should be thick, hard, flat and short, slightly feathered on thighs and tail. Color — red, orange, brindle or white, with patches of any of above colors. Markings — white muzzle, white blaze up face, white chest, forelegs, feet and end of tail, black shadings on face and ears."

The bull-dog, according to "Stonhenge," is of British origin. "His courage is so great that it has become proverbial, and with the exception of the gamecock, there is no other domestic animal at all coming up to him in this respect. Independently of this quality, there is much difference of opinion as to the mental peculiarities of this breed. By some authorities the bull-dog is stated to be quarrelsome and wantonly savage, so that he can never be made a safe companion, while others allege that he is mild and gentle in disposition, never showing his teeth until he is induced to do so by some special cause. As usual in such cases, the truth lies between the two extremes. The bull-dog is, no doubt, dangerous when his blood is up, and even his master runs some risk in meddling with him then, but he may generally be controlled with perfect facility, and he is mild, fondling and gentle in his manner, as a general rule."

Formerly the breed was kept for the purpose of baiting the bull, in which his tendency to pin the most vulnerable point (the nose) made him invaluable, no other dog having either the same desire to go at the head, in preference to all other parts, or the same unflinching hold of the grasp when once obtained. Bull-dogs have had their legs cut off after seizing a bull without letting go. At the present time, when bull-baiting is not practised, this dog is kept principally as a fancier's pet, but is also often used for the purpose of improving the courage of other breeds by crossing with them. An unusually fine specimen of this breed is illustrated in another portion of this volume.

Dogs, to be maintained in good health, should have an abundance of exercise; their nature absolutely requires this. Of course, the stolid bull-dog needs less than the nervous collie or the fly-away setter, but they must all have their run. This matter of outdoor exercise is too often overlooked by owners of pampered house dogs; they see their pets weak, languid and dispirited, and at once feed them abundantly with delicacies of all sorts, forgetful or ignorant of the fact that dogs, like human beings, are often great sufferers from indigestion, to which disease most of their ailments are owing.

If pet dogs were less highly fed, in fact, if they were obliged to gnaw a bone now and then for a living, and were given a good outdoor run every day, the teeth of the animals would not so soon decay, their bodies would break out less with sores, and other disgusting diseases would disappear, and their lives would cease to be the burden they sometimes are.

COL. HORACE T. ROCKWELL, BOSTON.

Ex-President Massachusetts Rifle Association. President Massachusetts Fish and Game Protective Association. President Massachusetts Charitable Mechanics' Association.

HENRY H. KIMBALL, BOSTON.

Secretary and Treasurer Massachusetts Fish and Game Protective Association.

CHAPTER XXX.

FISH AND GAME ASSOCIATIONS AND CLUBS.

THE MASSACHUSETTS FISH AND GAME PROTECTIVE ASSOCIATION.

By HENRY H. KIMBALL.

GREAT interest is usually felt in the first steps taken in the establishment of a new organization designed to promote the welfare of the people, or to secure reforms in established usages; and the names of the men who have been influential in founding a worthy institution are usually regarded with something like reverence by those who become associated in developing and carrying forward its later work. As I enter upon the presentation, in a very brief manner, of the history of our association and its work during the period of its existence, I must confess to a great admiration for the energy, zeal and wisdom displayed by its founders. They must have realized that they were entering a field of labor at that time untried in this country, as this association was, it is said, the very first of its kind in the United States.

If not the first, it was certainly among the first; and since its establishment, similar organizations have been formed in the other States which have been modelled after this, our constitution and by-laws, with slight modifications, having been adopted by most of them. Besides these State associations, a large number of county, town and city clubs, or leagues, have been established in all parts of the country for the same purpose, and on plans similar to ours.

Our organization may justly claim the honor of being the pioneer association in the great work of preserving fish and game, and the man to whom more than any other is due the credit of its formation, was Dr. John P. Ordway, its first president.

It was at his house that a few men of congenial spirits were gathered to consider and discuss plans for forming a club for the better protection of smelts and other fish, and the result of their deliberations was the organization of the "Massachusetts Anglers' Association," on February 7, 1873.

This organization rapidly increased in numbers, and on the 18th of March, 1874, secured the passage of an Act of Incorporation by the legislature of the State. On the 30th of March the corporators met at the Parker house, where they proceeded to accept the Act of Incorporation, and organized by the choice of Dr. John P. Ordway as president, and Charles Stanwood, treasurer.

At this meeting a constitution and by-laws were adopted and the association was prepared to engage in its legitimate work under the sanction of the State of Massachusetts and amenable to her laws.

The first Friday in April having been made the date of the annual meeting under the constitution, the association met at that time in Codman hall, Tremont street, when the same officers were re-elected, and among the names that appear on the list of vice-presidents are those of Hon. Thomas Talbot, afterwards governor, Hon. Charles Levi Woodbury, and Mr. John F. Mills. It is recorded that seventy-five persons responded on the roll of membership at this meeting; also that a motion was presented by Mr. H. T. Rockwell, "That a committee of three be appointed to consider and report on the propriety and expediency of securing the passage by the municipal authorities of Boston and other cities and towns of Massachusetts such ordinances as shall carry into effect the existing laws for the protection of fish, especially by preventing the sale of fish during the time when it is illegal to take them from the water."

The motion prevailed, and the committee was appointed. I mention this to show that no time was lost by the young association before entering upon its work. It seemed to be endowed with energy and manly vigor from the day of its birth. I find spread upon the records of the meeting of May 13, 1874, a letter from Hon. Charles Levi Woodbury which well illustrates the purpose and spirit of the members at that time.

BOSTON, May 12, 1874.

"I regret that I shall not be able to attend the meeting of the Massachusetts Anglers' Association to-morrow evening.

"The efficiency it has already shown in carrying out the objects of its formation give cheering promise for the future. I believe that careful attention to close time will prove as effectual in keeping up the supply of fish as the effort to increase their number by artificial attention to their breeding, and I by no means would disparage the benefit shown from the latter. Both utilitarian purposes and sport are conserved by the adoption of such regulations as tend to secure the keeping up of our fisheries.

C. J. H. WOODBURY, LYNN, MASS.

Vice-President Massachusetts Fish and Game Protective Association.

Hon. ROBERT S. GRAY, WALPOLE, MASS.

Vice-President Massachusetts Fish and Game Protective Association.

Hon. JAMES RUSSELL REED, BOSTON.

Vice-President and Counsel Massachusetts Fish and Game Protective Association.
Member of the Megantic Club.

Dr. JOHN T. STETSON, BOSTON.

Ex-Vice-President and Member of the Board of Management Massachusetts Fish and Game Protective Association.
Member of the Megantic Club, Etc.

"The short-sighted avarice that misuses and destroys this valuable source of food supply must be checked by the authority equal to preserving the free fisheries from exhaustion; and it is to the care with which societies like ours investigate the natural habits of the fish and the influences deleterious to their increase that authority must look for the knowledge requisite for successful action.

"I shall desire to be classed as a zealous if not a useful member of your society."

(Signed) CHARLES LEVI WOODBURY.

Rooms were secured in the Baldwin building, on Washington street (near Essex street), and the furnishings were procured chiefly by money contributed by the members.

The first meeting held therein was on June 8, 1874, and fifteen names of candidates for membership were presented.

At this meeting Mr. S. M. Johnson, chairman of the executive committee, reported that "Lewis wharf had been visited and the throwing overboard of lobsters, that were plugged, had been stopped."

On July 6th, it being reported that the lobster law was being violated, a committee was appointed "to see that any violation be looked after."

On Oct. 19, 1874, on motion of Capt. C. D. Macomber, the special committee were authorized "to see that a proper law be passed for the protection of mackerel."

On Feb. 17, 1875, the recommendation of the committee appointed to consider changes in the laws, recommended that the association "endeavor to procure legislation that shall fix the limit of the size of lobsters to be caught at twelve inches, to be measured *when the lobster is straightened out*"; also "that the association endeavor to procure the passage of a law in regard to trout so that *possession* of dead trout during the closed time shall be *prima facie* evidence of the violation of the statutes."

Reports of committees appointed to attend upon hearings at the State House in regard to the various changes desired in the statutes relating to the catching of trout, lobsters, etc., are of frequent occurrence on the records during the early years of the association.

Eminent speakers addressed the meetings. Men in the front rank as scientists manifested their interest by correspondence, donations, etc., among whom may be mentioned Louis Agassiz, Spencer F. Baird, Theodore Lyman, Hon. Daniel Needham — for several years a vice-president — Hon. Benjamin P. Ware, and many others. Entertainments — always without drawing from the funds of the association — at which ladies were present, were occasionally given, and donations of valuable books, reports of commissioners, specimens of fish, etc., were sent in from time to time by members and others; the most valuable single gift being that of specimens

of fishes of Massachusetts and those frequenting our waters, by Col. Theodore Lyman and Alexander Agassiz of this association.

An admirable description of the meetings of those early days is contained in "Col. Daniel Needham's Remarks" at the annual dinner of the association at Young's hotel, Dec. 9, 1892, and published in our annual report of that year. They will be of interest to members and friends of the association.

"*Mr. President and Gentlemen:*

"My mind, in this presence, is carried back to the early days of this institution; the days when the number was small, the interest limited, and the great public looked with doubt and distrust upon the purposes of our organization; the days when we had a club-room, attended with considerable cost, in a central location, where, evening after evening, a few interested and devoted men gathered to discuss, in a social way, the relation of the work of the Fish and Game Association to the public, and the necessity of securing legislation in aid of that work; the days when we undertook to lay the foundation of a library with the especial view of securing a history of the past to aid us in the future development of what we believed to be a great and important public interest. At that time every member gathered from his own personal library, as well as from every other available source, pamphlets and bound editions, directly and indirectly bearing upon the great subject embraced in our constitution and by-laws.

"I well recall the fact that one evening in the week a more formal gathering was held, and with the genial Dr. Ordway, then president of the association, occupying the chair, we discussed, in a ceremonious manner, questions vital to the growth and development of this society. It was not talk for talk-sake, but earnest, deep-studied thought, often expressed in terse and eloquent language, which found utterance on these occasions.

"Once in a month, ladies and gentlemen outside of our own number were invited to share our interest, listen to a lecture, and enjoy the modest hospitality which our limited treasury justified us in extending.

"Those were days of infancy and early growth; but they have vitalized large communities of men and written upon the statute books in every State of the nation, results, which appear in wise and discreet laws, arresting the extermination of fish from brook, river, lake and ocean, and game from hill, mountain, valley and plain.

"Ours has not been a work to preserve to royalty the exclusive opportunity of recreation by hunting game, but to secure to the people a common privilege in the enjoyment of a right which has been held as a type of higher manhood development in the highest walk of civilization.

"The game laws of England were enacted to secure to the king and the aristocracy an exclusive right to the enjoyment of an absolute monopoly.

Dr. ALPHEUS R. BROWN, BOSTON.

Member of Board of Management Massachusetts Fish and Game Protective Association. Ex-Member Board of Directors of the Megantic Club, Etc.

GEORGE J. RAYMOND, BOSTON.

Member Massachusetts Fish and Game Protective Association.

The early purpose has been but little broadened in the lapse of two centuries, and the common people of England, as yet, fail to find any advantage to them in their statutory provision. In our own country, original jealousy and suspicion were fostered and encouraged through the influence of the English game laws. State provisions in this behalf have been constantly growing in popular favor, until we may truly say, now, we have the universal support of all educated and right-minded men.

"Hardly second to Dr. Ordway, our first president, should be mentioned Mr. Mills, the first vice-president, both deserving a high place in the niche of memory of the members of this organization. They were both earnest, self-sacrificing, public spirited and generous, and without the twain the conception of this association would have been long delayed and its prosecution languished for support."

Prior to the year 1874, no satisfactory law had been enacted for the preservation of smelts. A closed time, from February 1 to May 1, was established by a law passed in 1868, which, however, was repealed in 1869, and the taking of smelts in any manner, except by artificially-baited hooks and hand-lines, between March 15 and June 1, *on any known spawning grounds*, was prohibited, under a penalty of twenty-five cents for each smelt unlawfully taken. In 1873, this law was modified by striking out the phrase "on any known spawning grounds," thus making it general in its application, and this, I think, was the result of efforts made by the men who organized the Massachusetts Anglers' Association. The law of 1873 was greatly improved and strengthened in 1874 by the efforts of the association.

For the first time the law was framed to reach those who sold the fish as well as those who caught them. By this law it was enacted that, "whoever *offers for sale or has in his possession* smelts, between March 15 and June 1, shall be punished by a fine of one dollar for each smelt so sold, offered for sale, or had in possession." An important addition to the law reads as follows:

"In all prosecutions under this act, the burden of proof shall be upon the defendant to show that the smelt or smelts were legally caught." It will be seen that this law was wider in its scope than the earlier statutes.

It was also more rigorous in the penalty imposed, and by reason of the last clause it was rendered less difficult of enforcement.

The improvement in existing statutes for the preservation of trout received the attention of the association during 1874. Various laws had been enacted from time to time, with this object in view; the first, in 1822, by which their capture "in any other way or manner than by hook and lines" was forbidden, under a penalty of fifty cents for each fish illegally taken. A law passed in 1849 established the first closed season —

September 15 to April 1 — but this was for the "Mashpee river" and the "District of Mashpee" only. In 1866, a closed season throughout the State, from September 20 to March 20, was established, with a penalty of one dollar for each trout unlawfully taken. This law was somewhat "amended and enlarged" in 1869, the same closed time being continued. The efforts made by the young society in 1874 resulted in incorporating in the law a prohibition of *the sale, and the having in possession*, of "trout, landlocked salmon, or lake trout, within the limits of this Commonwealth," during the closed season. This, unfortunately, was qualified by the phrase "taken within said limits," which rendered the probability of securing a conviction under it somewhat remote.

The penalty was fixed at "a sum not less than five, nor more than twenty dollars." The practical working of this enactment being found unsatisfactory, the association, aided by Hon. George D. Robinson (afterwards governor), then a senator from the second Hampden district, succeeded in securing an important change in the law.

The objectionable phrase, "taken within said limits," was stricken out, and it was further provided that "in all prosecutions under this act, the possession of any trout," etc., "shall be *prima facie evidence* to convict under this act." Another section was added, making it the duty of selectmen, police officers and constables to cause the "provisions of this act to be enforced in their respective cities and towns."

Sufficient has been said to show that the early legislative enactments for the protection of smelts and of trout were, in a great degree, experimental, and it was only by the most persistent efforts on the part of the association that changes were effected to remedy the defects, after they had been discovered, by attempts to secure convictions under the various laws.

In regard to the laws for the protection of lobsters and of birds, I will simply say, without going into details, that there was the same process of development in the framing of them as has been shown in the case of those for the preservation of smelts and of trout.

Early in 1877, the officers of several sportsmen's clubs in suburban towns expressed a desire to identify themselves with the Anglers' Association, and this resulted, after several conferences, in a change in the name to that of the *Massachusetts Fish and Game Protective Association*, an act being passed by the legislature of that year, granting this change of title. From this time the labors of the association were of wider scope, embracing the care of game as well as fish.

An account of our work, as outlined by President G. W. Wiggin in his Annual Address, Dec. 9, 1892, will be perused with interest:

"The *Massachusetts Fish and Game Protective Association* was incorporated, as set forth in its charter, for the purpose of securing and enforcing

BENJAMIN F. STEVENS, BOSTON.

Member Massachusetts Fish and Game Protective Association.
President New England Mutual Life Insurance Co., Etc.

WALDO A. RICH, BOSTON.

Member of the Massachusetts Fish and Game Protective Association.

proper restrictions upon the taking and killing of fish, shell-fish, bivalves, and game; the promotion of the culture of fish and game, and the introduction of new species and varieties of fish and game, and to disseminate information relating thereto.

Hon. GEORGE W. WIGGIN, BOSTON.
Ex-President and Counsel Massachusetts Fish and Game Protective Association.

"From its beginning the association became actively engaged in carrying out the objects for which it had been chartered. The records show that the attention of its members was early directed to such subjects as the preservation of fish in our inland lakes and streams, the decrease of fish in Massachusetts bay, the destruction of lobsters on our coast, the preservation of trout in our streams, the seining of smelts in our bays.

"That there was abundant need of action on the part of some one is shown by the following lines which I have copied from those records: 'But the most important phase of the subject relates to the future supply of fish. Last year (1874) we were nearly deprived of smelt; full-grown lobsters are now almost unknown; while trout and salmon have hardly yet, under the influence of stringent protective laws for several years, recovered from the effects of their almost total annihilation by being caught while in spawn, before the laws were enforced.'

"From the beginning our records show an earnest, persistent and disinterested endeavor on the part of the association to secure such laws as would tend to the preservation and increase of our useful food fishes for all the people of the Commonwealth.

"Year after year, committees from our association have gone to the legislature and asked for wholesome legislation for the preservation of our fish and game. Year after year those committees have succeeded, little by little, until at last our laws are beginning to assume an effective condition. Those laws to-day are by no means what they should be, but they are infinitely better than they were when the work of this association began.

"But our efforts have not ended with securing better laws and attending to their enforcement. Three years ago the association decided to enlarge its sphere of action, and entered upon the work of introducing into the Commonwealth new species and varieties of game birds, and thus far we have imported and set free in various localities throughout the State 2,200 birds, and for that purpose have expended no less than $1,500.

"There seems to be no reasonable doubt that the effect of our stringent game laws has been to increase both the fish and the game of our State; but the experience of our officers, gathered in the discharge of their duty, shows us very plainly that those laws still need amendments and additions.

"Our success in the introduction of new varieties of game birds into the State, brings forcibly to our minds the question whether the association ought not to attempt something further in the matter of re-stocking our streams with trout and other useful food fishes.

"One of the cardinal principles of our association is the dissemination of information upon fish and game culture and fish and game protection; and the degree of unfamiliarity with those subjects which we encounter whenever we attempt to secure some wholesome legislation, leads to the conclusion that we have still another broad field for useful work.

"Ignorance and selfishness are two of the worst obstacles which we have to encounter in the prosecution of our labors. If we can only succeed in convincing the people at large that we are laboring, not for the gratification of our own selfish desires, but for the broader and higher purpose of benefiting the whole community, we shall make those people our allies in the enforcement of our laws, instead of enemies, arrayed in hostile ranks against us at every step in our progress.

"*The local fish and game associations*, which are springing up all around us, are another powerful agency in our behalf. I do not mean those associations whose members, on a given day, array themselves in opposing forces, and start out to see which side can outdo the other in the indiscriminate slaughter of birds and animals, — a most barbarous and unhallowed sport, — but those associations whose aims and purposes lie in the

JAMES E. MAYNADIER, BOSTON.

Member of the Massachusetts Fish and Game Protective Association, Etc.

ALFRED A. GLAZIER, BOSTON.

Member Massachusetts Fish and Game Protective Association, Etc.

same direction as our own. These organizations deserve, and ought to receive our heartiest co-operation.

"Put half a dozen of these local associations in every county throughout the State, and interest them in our work, and we can bid defiance to all the hostile, selfish opposition that can be arrayed against us."

The administration of Dr. Ordway was marked by great energy and efficiency along all lines of work as specified by our charter, and during his five years of service in the chair, the association increased in numbers until, in 1879, the roll of membership showed about five hundred names.

The last meeting in the rooms on Washington street was held on the 19th of May, 1882.

In April, 1879, Mr. Walter M. Brackett was chosen president, and after two years' service in that capacity, he was succeeded by Mr. John Fottler, Jr. His term of four years was followed by that of Mr. Edward A. Samuels, who was elected on January 14, 1885, and served during a period of seven years.

The next president was Hon. George W. Wiggin, chosen in 1892. After a term of three years, Mr. Wiggin was followed by Mr. Benjamin C. Clark, who after two years' service in the chair was succeeded by Col. Horace T. Rockwell, the present incumbent.

That the association has been highly favored in having had such men to preside over its deliberations and to direct its management, no one will deny. From an intimate knowledge of the affairs of the association from its inception, the writer is able to state without fear of contradiction, that all of our presiding officers have shown a deep interest in the welfare of the association and have served it with great fidelity.

They have spared neither time or money in their endeavors to promote the interests of the association. Their labors have been supplemented by those of many other members, who have served on the board of management as vice-presidents, members of the executive and fund committees, and of the committee on the acclimatization of birds, and in other capacities, whose duties have been arduous, and whose names should be held in grateful remembrance by all the friends of fish and game interests. The committee on legislation, of which the president is chairman, has never failed to be represented at all important hearings before the committee on fisheries and game at the State House, and, while its suggestions and recommendations have not been followed in all cases, they have always received respectful consideration.

The learned counsel of the association, the Hon. Charles Levi Woodbury, Hon. George W. Wiggin, Hon. James R. Reed, and Waldron Bates, Esq., have rendered signal service in shaping legislation, and in many other ways.

In point of numbers, the association has varied considerably at different periods since its organization, the largest membership having been attained in 1891, when there were five hundred and sixty-five names upon the roll of paying members.

One of the purposes of our organization, as designated in our charter, is "to disseminate information relating thereto," that is, "relating" to fish and game.

While a vast amount of labor has been performed, in our endeavors to procure better laws, the educational work has not been neglected. For many years it has been customary for the association to send out to all applicants therefor, printed "abstracts" of the game laws of the State, for pocket use, as well as others printed on cloth, designated as "posters," to be put up in post offices, railroad stations, and other public places. On this point, I quote from the Annual Address of President Clark, delivered on Jan. 16, 1896:

"It may be said, briefly, that information relating to fish and game has been disseminated broadcast throughout the State. No person has come to us with complaints of violations of law without receiving the assurance that on the presentation of the proper evidence, counsel will be furnished without expense to the party complaining.

"Large numbers of posters containing an abstract of the game laws, on cloth, have been sent out, several hundred of them in Italian as well as in English, and hundreds containing the Sunday laws."

After stating that the officers had presented the views of the association to the committee on fisheries and game, at the State House, on the various matters which engaged their attention, he said, "several new associations have been formed, and we have been glad to furnish information as to methods of organization and work.

"The formation of such associations is a most encouraging feature of the times."

The meetings of the association are usually attended by reporters of the daily papers, who are glad to present to their readers outlines of papers read, and the discussions of important questions that arise from time to time, and which receive the careful attention of our members. The public interest is thus kept alive to the work of protection and propagation, and the brotherhood of sportsmen is cemented more closely by the bonds of mutual acquaintance and social good-fellowship. The good influence of frequent meetings can hardly be overestimated. During the first two or three years of the life of the organization, as shown by our records, meetings were usually held twice a month.

It is worthy of mention that the law of 1887 for the protection of mackerel originated in our association. A special committee of our body drew up a memorial for such a law, which was sent to the Congress of the United

IVERS W. ADAMS, BOSTON.

Ex-Vice-President Massachusetts Fish and Game Protective Association.

NELSON L. MARTIN, BOSTON.

Member Massachusetts Fish and Game Protective Association, Etc.

WILLIAM A. CARRIE, BOSTON.

Member of Massachusetts Fish and Game Protective Association.

E. FRANK LEWIS, LAWRENCE, MASS.

Member of the Massachusetts Fish and Game Protective Association.

States; and, in fact, the law as passed, was drafted by one of our members, the Hon. Charles Levi Woodbury.

In view of the well-known fact that sportsmen generally are good livers, and as such are interested in preserving the lobsters from extermination, the writer will state that, had it not been for the vigorous and long-continued efforts of our association, the legal limit of ten and one-half inches would, undoubtedly, have been reduced to nine inches in 1896.

In this connection, a portion of the argument in favor of the existing law, presented to the Governor at that time by President Clark, will be read with interest.

"It has been well said that the fecundity of fish is not a defence against man's rapacity. It is a delusion to believe that the natural supply furnished by Nature with such prodigality is unlimited and inexhaustible. The practical extermination of the buffalo and the whale witness against such a theory. Prof. Baird says, in regard to fish, that 'the immense fecundity is an absolute necessity to preserve the balance of life under water.' It must certainly be admitted that the number of lobsters taken by man's agency is infinitesimal compared with the total number destroyed by other causes. It is believed that on the average only two lobsters mature out of each 10,000 eggs, and as man takes from the survival product which Nature saves, the destruction then becomes a very serious factor. Those who have been familiar with the history of the lobster in Massachusetts for the last fifty years need no demonstration of the fact, fully proved by the statistics, that they are rapidly decreasing in size and numbers. According to the returns, the number of large lobsters taken decreased in 1894 over 1893, 52,898, and in 1895 over 1894, 140,469.

"The evil of the destruction of the individual lobster before maturity is seen in its real significance only when we consider the law of the production of its eggs. Prof. Herrick, in his most interesting and comprehensive work on *The American Lobster*, recently published by the United States Fish Commission for 1895, demonstrates that the number of eggs produced at each reproductive period varies in a geometrical series, while the lengths of the lobsters producing them vary in an arithmetical series. A lobster eight inches long produces about 5,000 eggs; one ten inches long, 10,000; one twelve inches long, 20,000; and one of fourteen inches, 40,000. This rate ceases to be maintained later, a seventeen-inch lobster producing 63,000 eggs. Now, when we consider that in 100 dissections, twenty-five females were found, from nine and five-sixteenths to twelve inches long, which had never laid eggs, and that of seventeen out of the twenty-five which were immature, six were ten and one-half inches, or more, in length, and the ovaries would not have become mature for two years, a most convincing argument is furnished why the length at which the lobster may legally be taken should be increased rather than shortened.

"To reduce the length to nine inches will be the beginning of the end of the lobster as a food supply in the waters of the Massachusetts coast, and will most certainly ruin the industry for the hundreds of men engaged in it.

"An additional argument, if it were needed, is found in the fact that the lobster is not migratory, and that when we deplete our supply we cannot look for any renewal of it from other sources."

From the address of President Samuels, delivered on the occasion of the Annual Dinner, January 26, 1888, I quote the following: —

"You will remember that in my Annual Address in 1885, I used these words: 'Unless our lobster laws are modified so as to secure a close season, we are likely, in the not distant future, to suffer from a scarcity, if not failure, of our supply.' It seems to me, and I am by no means alone in my opinion, that the New England States should have not far from a two months' close season. . . . Unless something is done to this end, I sincerely believe we shall, in a great measure, lose one of the most important and delicious articles of food that we take from the water. . . . It is a matter of common observation among us that the average size and catch of our lobsters grow less and less every year, and the history of the lobster fisheries in Europe bears me out in the views I have expressed."

Another direction in which we have labored has been in connection with the Old Colony and South Eastern Massachusetts Clubs in their efforts to save the shore fisheries of Buzzard's bay, and our combined efforts were successful.

As is generally known, the Boston marketmen have sought during the last two sessions of the legislature to have all restrictions upon the sale of game removed; and to prevent such action has been a work of no small magnitude. Fortunately, by the combined efforts of the ornithologists and our officers, the attempts of the dealers in this direction were frustrated.

In this connection some extracts from the *Argument* of our counsel, Hon. James R. Reed, before the Committee on Fisheries and Game, in 1896, may be of interest.

"*Mr. Chairman and Gentlemen of the Committee:* —

"You have listened patiently for many days to the presentation of views on the subject of game protection. You have noticed by this time that the people who have appeared before you can be easily divided into two distinct classes, one of which, as represented by the Marketmen's Association here, is comprised of gentlemen whose interest in the matter is, on their own admission, entirely a pecuniary one. They are engaged in the business of selling game as well as other articles of provisions, and their interests are necessarily those affecting their pockets. From their point of view, the selling of game at all seasons should be encouraged. The other class is composed of men, some of whom might be called practical

Hon. CHARLES F. SPRAGUE, BOSTON.

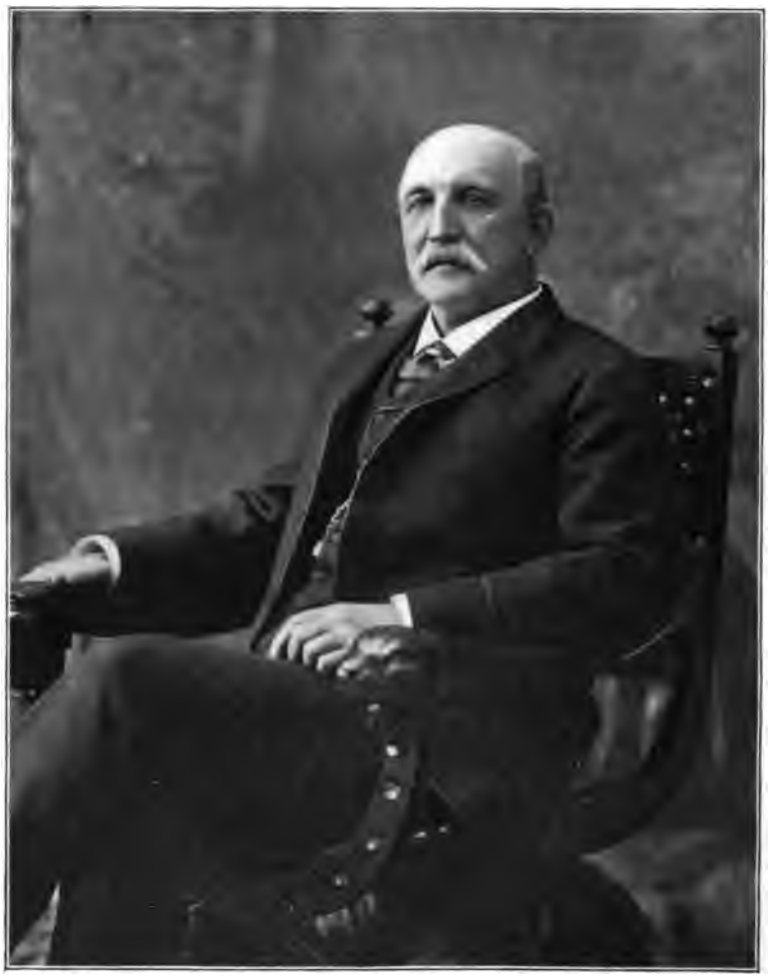
Member of the Massachusetts Fish and Game Protective Association.

Major CHARLES W. STEVENS, BOSTON.

Member Massachusetts Fish and Game Protective Association.

Commodore JOHN N. ROBERTS, BOSTON.

Ex-Member of the Board of Management of the Massachusetts Fish and Game Protective Association.



DAVID H. BLANCHARD, BOSTON.

Member of the Massachusetts Fish and Game Protective Association, Etc.

sportsmen, and others who take what may be called a sentimental view of the subject, and who, while not shooting at all themselves, wish to see the game of this State protected as far as reasonable.

"There is no question at all but what as our game decreases, laws for its protection must be made more stringent from time to time. In my own experience I have seen the season for woodcock shooting, which formerly opened the first of July, gradually shortened so that for several years it was made to open the first of August, and then later still to the first of September, and then shortened still more to our present season, which opens the fifteenth day of September; while on partridges the law which for a great many years opened on the first of September has also been shortened so that it opens on the fifteenth day of September. It is quite probable that it may be necessary even now to shorten that still more, and possibly to go as far as the bill proposed which allows simply the months of October and November for shooting. There is a very natural difference of opinion as to whether December should be made a close month or not. I am inclined to think that even if you leave that open a few years longer, it may then become necessary to close it. These gentlemen, with their somewhat diverse views as to shooting, all believe, however, that *the seasons for allowing shooting and for allowing sale should coincide.* . . .

"Our friends, the marketmen, have spoken to you of the magnitude of the commercial interests involved in game, and I have no doubt of the correctness of the statement made here, that the business amounts to $400,000 a year. I would suggest to you that that sum does not begin to represent the actual cash value of the sport to those who indulge in it. It is said on the best authority that in the State of Maine over $2,000,000 a year is left behind by sportsmen from other States who go there for health and recreation. Of course people do not come to Massachusetts for that purpose to any great degree, but our own people — those who for business or money reasons are unable to go away long enough to take a vacation in the large northern woods — get that which they would not sacrifice for much money here at home. I feel sure that double the amount stated by the marketmen as their business in game would be a small sum to represent the pecuniary value of shooting to those who value it as a sport. It is by no means a rich man's sport exclusively; far from it. The majority of our rich men who shoot and fish go far away from home for their sport. It is the man of limited means who gets the pleasure here at home. As to the standing of sportsmen, as a class, it is sufficient to say that Presidents Arthur, Harrison and Cleveland have, for the last sixteen years, shown that it is, at least, respectable to get recreation and health, shooting and fishing. . . .

"But there are men, however, who shoot, and they comprise a class

spoken of as 'pot-hunters,' who care more for the pecuniary return than for the sport. These men are dangerous to the community because they are tempted to shoot before the season opens, when they have a better chance to get the game than honest sportsmen do, and to shoot after it closes, because it is to them a question then of getting better returns. This class of 'hunters' would shoot very little if it were not that the market is open to them. As long as the markets are open they will shoot without regard to law, and not only shoot but snare. I am glad to say that the 'pot-hunter' does not do as much harm now as he did fifteen or twenty years ago, because there is no question but what the sentiment of the community has grown in the right direction; and where twenty years ago woodcock and partridge could be easily obtained at the market or hotels in the close season, it is now comparatively difficult to find them there. By long experience we have found that the only way to limit the ravages of this 'pot hunter' is to limit the sale of his birds. It is practically impossible to detect or catch him in the act of shooting, as you gentlemen can readily see, from the fact that his violation of the law is committed in the remoter parts of the woods and where, as a rule, he is necessarily alone."

From what has been presented in this article it will be seen that our officers have learned, in their attempts to preserve fish and game, that the market in every case has proved to be the key to the situation.

They have found that *a market being provided*, there are men who are ready to do the rest, and it seems to be evident that so long as trout are seen to glisten in our streams, or the roll of the partridge's drum is heard in our woods, or the whistle of Bob White in our fields, there will be work for associations like ours.

CHARLES B. BARNES, BOSTON.

Member Massachusetts Fish and Game Protective Association, Union Club, Etc.

RICHARD ROWE, BOSTON.

Member Massachusetts Fish and Game Protective Association.

CHARLES C. WILLIAMS, BOSTON.

Member Massachusetts Fish and Game Protective Association.

BENJAMIN F. NICHOLS, BOSTON.

Member of the Massachusetts Fish and Game Protective Association.
Formerly Manufacturer of the Nichols Split Bamboo Rods.

LEE HAMMOND, BOSTON.

Member Massachusetts Fish and Game Protective Association.

H. A. MANSFIELD, WALTHAM, MASS.

An All-round Sportsman.
Member of the Massachusetts Fish and Game Protective Association, Waltham Rifle Club, Etc.

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Hon. EDWIN U. CURTIS, BOSTON.

M. I. FURBISH, MANAGER OF THE GOLD MEDAL BRAID CO., ATTLEBORO' FALLS, MASS.

An Enthusiastic Explorer of Wilderness Rivers.

Major C. W. HINMAN, BOSTON.

Member of the Board of Directors Massachusetts Rifle Association.

Capt. E. B. WADSWORTH, BOSTON.

President Massachusetts State Shooting Association. President Boston Shooting Association. Ex-Commander Boston National Lancers.

FRED. IRLAND, WASHINGTON, D. C.
An Ardent Sportsman.

EDWIN BRADFORD HOLMES, BOSTON.
An Enthusiastic Lover of Field Sports.

SALEM D. CHARLES, Esq., BOSTON.
Member of Worcester Fur Club, Etc.

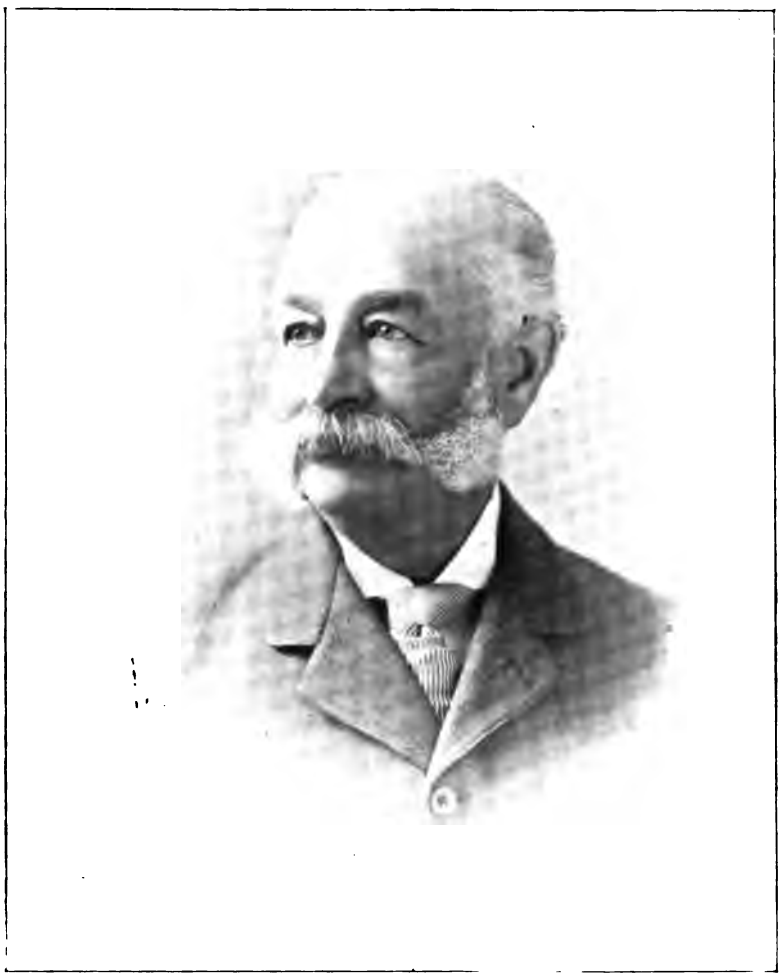
THE HOPEWELL CLUB.

Photo. by Geo. B. Goodall.

Photo. by George B. Goodall.

CAMP GOODALL, HEADQUARTERS OF HOPEWELL CLUB, LAKE NEWICHAWANICK, N. H.

CLUB HOUSE OF THE INGLEWOOD FISH AND GAME CORPORATION.



ANDREW S. MARCH, BOSTON.

Ex-President Inglewood Fish and Game Corporation, New Brunswick.

The Inglewood Fish and Game Corporation.

The property belonging to this corporation, situated on the Musquash river, in the counties of St. John and Kings, in the Province of New Brunswick, contains about 38,000 acres of land, with twenty-six lakes and connecting streams. These lakes, ranging from one-half mile to nine miles in length, are well stocked with landlocked salmon, brook trout, and young sea salmon; 200,000 sea salmon fry have been placed in the waters, and the Dominion Government is sending 50,000 annually to be distributed in the various tributaries of the Musquash river, which is said to have been years ago, one of the best salmon rivers on the coast. Extensive fishways have been constructed by the club, to give the salmon free access to the sea, thus assuring in the near future to the Inglewood Club, salmon fishing, in addition to many other great attractions it possesses.

This wilderness and preserve can be reached from Boston, *via* Boston & Maine railroad (two trains per day) also, *via* International S. S. Co.'s fine line of steamers, three times a week — see time-tables.

Guests can leave camp in the morning, and arrive in Boston the same evening; there is also a fast down-train, leaving Boston at 8 A. M., and arriving in Westfield at 10 o'clock in the evening, so that an early start could be made for camp the following morning if desired. It takes about three hours to reach camp from Westfield on the New Brunswick railroad, and the same length of time from Musquash station on the Shore Line railroad. The lease of this property has about twenty years to run, and has a provision for its extension. Boats and canoes are free to members and guests. In addition to the club camps, good comfortable lumber camps are located at various points which are free to members of the club to use when desired.

The forests furnish all the game usually found in Maine or New Brunswick. Deer are plenty, caribou and moose are occasionally seen, partridges, ducks and other small game abound. The hatching-house has a capacity of 1,000,000 eggs; 65,000 landlocked salmon eggs from Grand Lake stream were hatched in this house, with less than five per cent. loss; trout eggs were hatched also with equal success, and the fry have been distributed in the small tributaries of the large lake.

The officers of the club are as follows:

E. Noyes Whitcomb	President.
Leroy S. Brown	Vice-President.
Henry O. Cutter	Treas. and Ass't Secretary.
Leonard B. Knight	Secretary.

Directors.

Andrew S. March.	Henry B. Moore.	Samuel Shaw.
Henry E. Cobb.	S. Fred Hicks.	J. Nelson Parker.
E. Noyes Whitcomb.	Leroy S. Brown.	L. B. Knight.

THE MAGAGUADAVIC FISH AND GAME CORPORATION.

THE Magaguadavic Fish and Game Corporation was incorporated under the laws of New Brunswick in the year 1892, with a capital stock of $20,000, divided into 400 shares at $50 per share. The preserves of the corporation consist of a tract of land 5,000 acres in area, known as the "Stanus Grant," situated in Charlotte county, in the southeastern part of the Province of New Brunswick, and is practically an unbroken wilderness. The property is covered by a dense forest, broken by a score of lakes and ponds and traversed from end to end by the beautiful and picturesque Magaguadavic river, from which the corporation derives its name.

This region abounds in every variety of large and small game indigenous to this part of North America. Moose, deer and bear are numerous, while the devotee of the shotgun easily finds woodcock, duck, partridge and other small game. Its lakes and streams afford unsurpassed opportu nities to the angler, as the trout here reaches a size and possesses a gaminess but seldom attained elsewhere.

The corporation is unusually well supplied with the necessities and comforts of camp life. It has three fine camps. One situated on Birch island in Digdeguash lake, and another at McDougal lake, while at Sparks lake is probably one of the best-appointed and most beautifully situated camps in the Provinces. At each camp the corporation owns a fleet of fine canoes and boats, which are at the disposal of members.

The headquarters of the corporation is at Bonny river, a station on the Shore Line railway, where there is a comfortable, well-kept hotel, and from which all parts of the preserves can be reached by buckboard over unusually good roads.

The officers of the corporation are: President, G. W. M. Guild, Boston; Vice-Presidents, Walter H. Fox, New York City, and John A. Ordway, Jr., Boston; Treasurer, Geo. D. Loud, Boston; Secretary, Oliver B. Graves, Cambridge.

CAMP AT MCDOUGAL LAKE.

AN INCIDENT AT SPARKS LAKE.

RAYMOND R. GILMAN, BOSTON.

Corporation Counsel of the Magaguadavic Fish and Game Corporation.

Dr. HEBER BISHOP, BOSTON.

Founder and Ex-President of the Megantic Club, Vice-President of the Massachusetts Fish and Game Protective Association.

THE MEGANTIC FISH AND GAME CORPORATION.

By ARTHUR W. ROBINSON.

SOME ten years ago an enthusiastic sportsman with a few of his friends, who believed that an ideal hunting-ground had been discovered, and that with proper care its attractiveness could be preserved for many future years, decided to form a club with the purpose of acquiring control of this territory, giving fellow-sportsmen an opportunity of enjoying its exceptional privileges, and by proper restrictions preserve the forests and natural beauties, and protect and propagate the fish and game.

As a result, the Megantic Fish and Game Corporation was organized, and on February 15, 1887, it was incorporated under the Maine laws, and on March 26, 1887, a charter was obtained by it from the Province of Quebec.

Since that time the history of the club has been one of progress, acquisition and success, and the fondest hopes of the founders have been more than realized.

At the present time, the club has a membership of 300 — the stated limit — and owns and leases a territory comprising 250 square miles, containing three lakes, twenty ponds, six rivers, eight streams and eight bogs.

It has a large and commodious club-house, twenty-three public and fourteen private camps, a fish hatchery, a steam launch and a large supply of boats and canoes.

Its vast preserve, one of the largest in the world, is an unbroken wilderness 3,000 feet above the sea-level, situated in the northwestern corner of the State of Maine, and extending over the border into Canada.

In this domain are found moose, caribou, deer, bears, and many kinds of smaller game. Partridges are very tame and plentiful, and all kinds of water-fowl frequent the lakes and ponds. The waters abound in trout, togue, bass and landlocked salmon.

The general supervision and care of the preserve is in the hands of a superintendent, who is also a Maine game warden; and a Canadian warden, who looks after the club's interests over the border. Stewards

have charge of the club-house and larger groups of camps in the summer, and caretakers relieve them in the winter and secure wood and ice and repair camps and boats.

The club-house is situated on the southern shore of Macannamac or Spider lake, about 344 miles from Boston, in the midst of a tract of woodland three miles long, which is owned by the club.

The club-house is a frame building of three stories, with broad piazzas from which a charming view of lake and mountain scenery is to be had. Inside is a cosy parlor, with a beautiful fireplace, piano, etc., a roomy hall with another large fireplace, a bright, tasty dining-room; and on the upper floors are bed-rooms furnished with hardwood chamber sets, the whole affording accommodations that can hardly be expected so far back in the woods. The house is supplied with hot and cold water, baths, etc., and it is safe to say that a more charming spot for comfort, enjoyment and a good table cannot be found, and it is little wonder that many members are content to spend their entire vacation here.

The fishing in the lake is very good, especially the bass-fishing; and the Spider river, near at hand, offers every inducement to those who seek an abundance of trout. Deer are very plentiful in the vicinity of this river, and also at Rush lake, which is a favorite resort for all kinds of waterfowl. The club-house is easily reached by rail to Megantic and thence by steamboat and club-launch across Megantic and Spider lakes. From the club-house a walk of six miles over a good trail brings one to Crosby pond. It is an ideal place in which to camp, and as the accommodations are excellent it is a popular resort. The fishing is extremely good and many large trout are taken.

It is also a favorite locality for deer, which may be seen at almost any time around the shores.

From Crosby, trips can easily be made to Upper Hathan Bog, one-half mile distant, Lower Hathan Bog, one mile distant, and to Cranberry Bog. Good fishing is to be had in all of these waters and deer are very plentiful.

One and a-half miles from Crosby is Arnold pond, lying at the base of Black mountain. It is a very romantic spot, with fish and game in abundance, and excellent accommodations are furnished at the club camp.

From Arnold pond short trips can be made to Mud, Horseshoe and Otter ponds, and excellent sport obtained. Two and one-half miles from Crosby is Massachusetts Bog camp, which is delightfully situated on the banks of a noisy stream, a short distance from the bog, which is a narrow strip of water two miles long, lying at the base of the Boundary mountains. The fishing here cannot be surpassed, and the low, marshy shores are excellent feeding-ground for an abundance of game.

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Three and a-half miles from Massachusetts bog is beautiful Northwest pond, where the club has four camps. The trout-fishing here is simply wonderful and three at a cast is the rule. For variety, the sportsman can visit Little Northwest pond, South Boundary pond and Grant pond, all within a half-mile. One mile from Grant pond is Big Island pond, the largest and most beautiful of the seven ponds. The club has ten camps here, under the care of a steward. Trout are abundant, large and gamy, and landlocked salmon have been successfully introduced. The club hatchery is located here, and many thousands of trout and landlocked salmon are each year hatched, reared and finally liberated in the various waters.

The favorite fishing resorts which can easily be visited from Big Island camp are L pond, Beaver pond, Long pond, Little Island pond and Rock pond.

To the Chain-of-ponds it is seven and one-half miles by easy trail. The chain consists of Round, Long, Bag, Upper and Lower Pocket ponds, and affords a great variety of waters for the fisherman to try.

The club camps, seven in number, are situated on a peninsula in Long pond, a beautiful sheet of water, 3,000 feet above the sea, surrounded by high and rugged mountains.

From the Chain-of-ponds to Eustis it is twelve miles by buckboard, or by canoe down the Dead river.

Briefly, I have given a description of the Megantic Club's preserve, which from the sportsman's standpoint I believe is an ideal one in every way.

The angler finds not only an abundance but also a variety of fish to reward his skill, and with the numerous ponds and streams at his disposal, the sport never becomes monotonous.

The hunter who prefers the shotgun, finds partridges, ducks, etc., in large numbers and he can always rely on a good bag. The lover of the rifle finds deer in great abundance, and moose, caribou and bears. If he wishes to hunt by the waters, the numerous streams afford him an excellent opportunity to glide in a skilfully-handled canoe, up to the unsuspecting deer. If he prefers still-hunting, he can explore new retreats every day, so vast is the preserve, and still find plenty of game.

If the member wishes sport without any hardship, he can thoroughly enjoy himself at the club-house. If a rougher life is sought, he goes to one of the groups of camps, where a steward is in charge. If even this is too civilized for him, he seeks one of the solitary camps, and with his guide for a companion he enjoys a complete retreat from the world.

In closing, I can only add that it has ever been the desire of the officers of the club to make the preserve a veritable paradise for sportsmen, and I believe that unparallelled success has attended their efforts.

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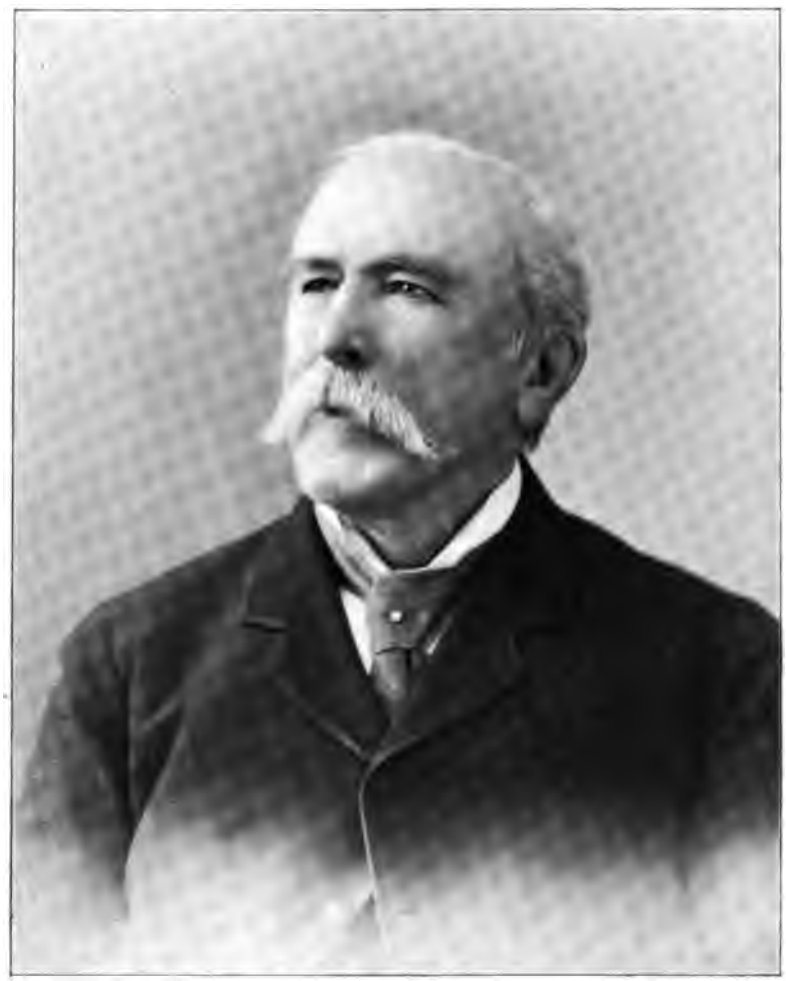

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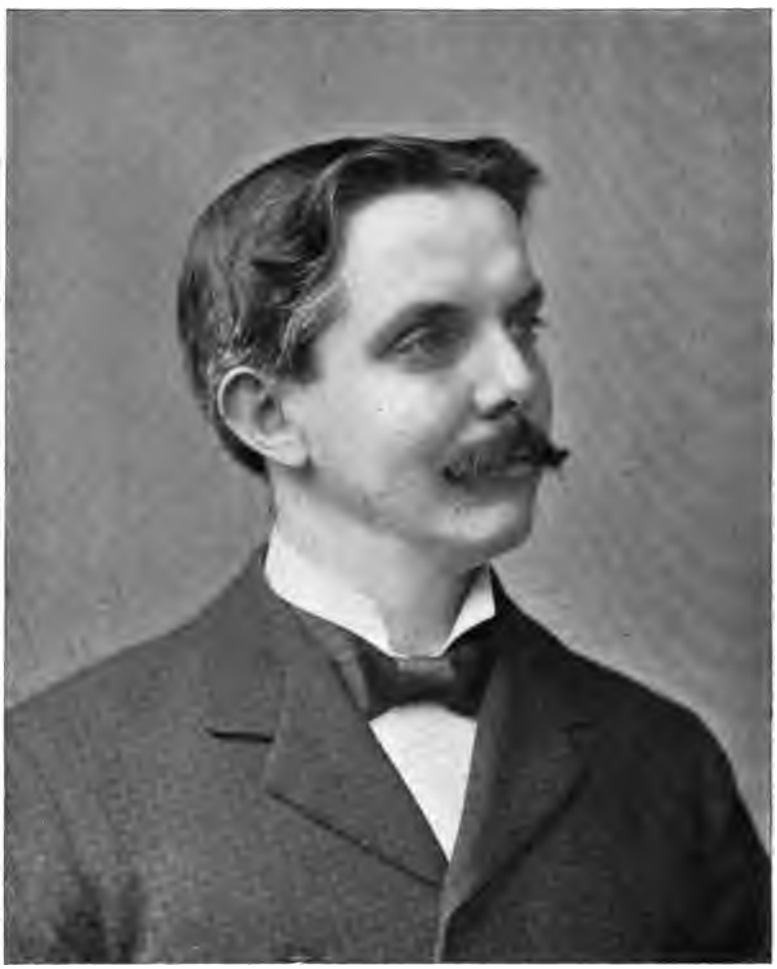

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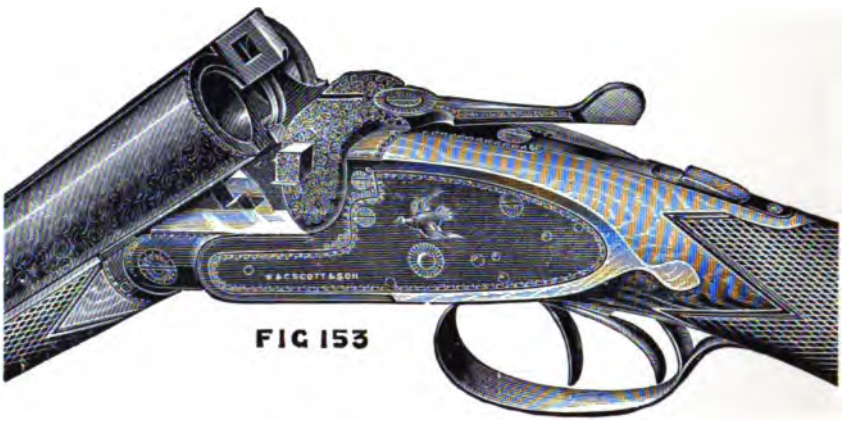

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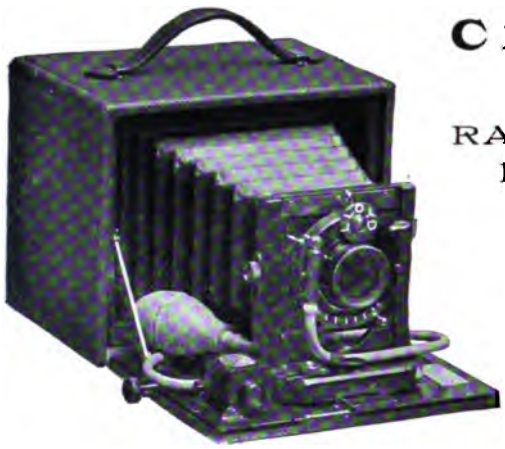

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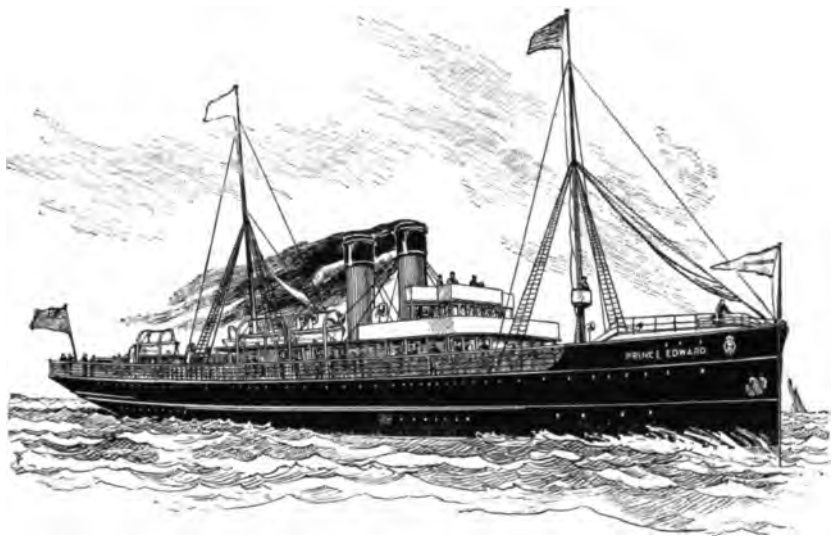

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G. D. BURGESS, New England Manager.

Some few parties using our goods: Somerset Club, Exchange Club, Union Club, University Club, Boston Athletic and Algonquin Clubs, of Boston.

Sportsmen's : Supplies.

Personally Selected Fine Old

PORTS AND SHERRIES,

embracing every variety, $2.00 to $10.00 per gallon; Five to Fifty dollars per dozen.

OLD COGNAC BRANDIES,

$5.00 to $16.00 per gallon; Thirteen to Sixty dollars per dozen.

OLD VATTED

EASTERN RYE WHISKIES,

$2.50 to $10.00 per gallon; Eight to Thirty dollars per dozen.

SELECTED

OLD SCOTCH WHISKIES,

comprising the following well-known brands; Glenlivet, Islay, Campbellton, Lagavullen, and Cragenmore, $4.50 to $8.00 per gallon; Twelve to Twenty-two dollars per dozen.

JOHN FENNELL,

Importer and Wine Merchant,

161 DEVONSHIRE STREET,
22 ARCH STREET,

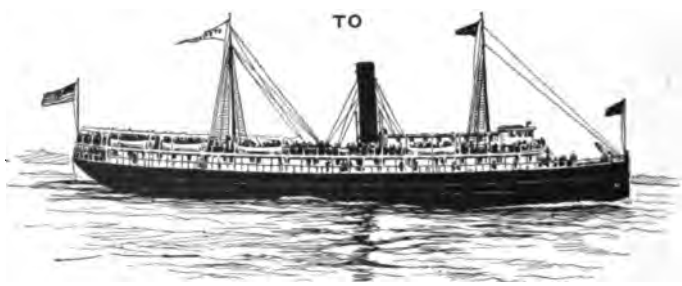
BOSTON.

INTERNATIONAL STEAMSHIP CO.

THE SCENIC ROUTES OF THE EAST.

FROM COMMERCIAL WHARF, BOSTON

Via PORTLAND,



EASTPORT,
LUBEC,
CALAIS,
CAMPOBELLO,
ST. ANDREWS.

ST. JOHN,
CONNECTING FOR
NEW BRUNSWICK,
NOVA SCOTIA
AND
P. E. ISLAND.

Str. State of Maine. (1,600 Tons.) *Str. Cumberland.* (1,700 Tons.) *S.S. St. Croix.* (2,000 Tons.)

The Service of the Company varies with the seasons.

In SUMMER, Five Ships each Week.
In LATE SPRING and EARLY FALL, Three Ships each Week.
In WINTER, One or Two Ships each Week.

☞ *For detailed Schedule, see daily papers or send to Company's Office.*

J. B. COYLE, Manager,
PORTLAND, ME.

E. A. WALDRON, General Agent,
BOSTON, MASS.

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